

CATALOG NO.

WH50M

First Edition

CLASSES

513

514

515

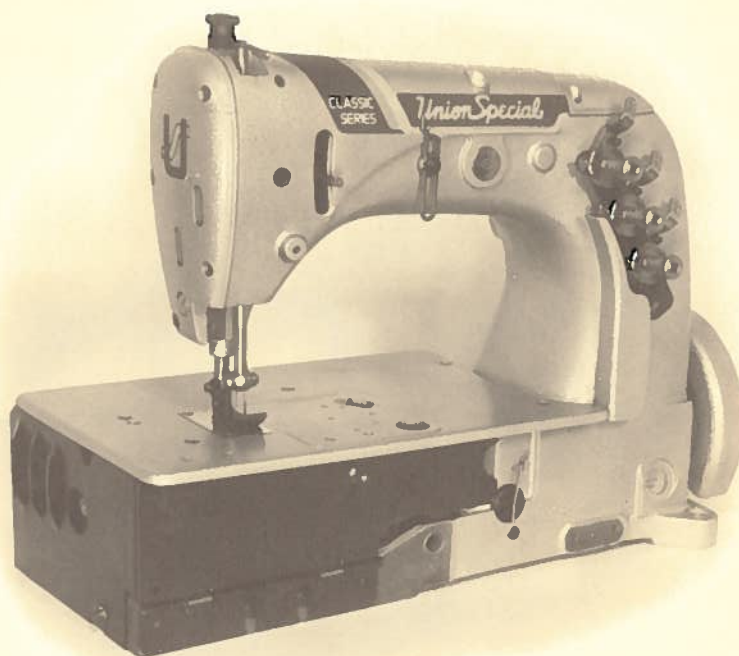
517

519

527

528

Adjusting instructions and illustrated parts list



50M Classic Series
Streamlined flat bed machines



Finest Quality

Union Special[®]
Industrial Sewing Equipment

CATALOG NO. WH50M
ADJUSTING INSTRUCTIONS AND
ILLUSTRATED PARTS LIST FOR
50M CLASSIC SERIES - STREAMLINED
FLAT BED MACHINES

STYLES

513-11	515-22	527-23
513-12	517-21	527-24
513-13	519-31	528-21
514-21	527-21	528-22
514-22	527-22	528-31
515-21		528-32

First Edition

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June, 1982

IDENTIFICATION OF MACHINES

Each UNION SPECIAL machine carries a style number, which on this class machine is stamped in the style plate located to the right front of the machine.

The serial number is stamped in the extension of casting at the right rear base of machine.

The distance between the rows of stitches on machines in all Classes except 513 is represented by a gauge number measured in 1/64ths of an inch. Thus, 12 gauge represents a distance of 12/64 or 3/16 inch. Similarly, 64 gauge represents a distance of 64/64 or 1 inch.

STYLES OF MACHINES IN CLASS 513

Streamlined Flat Bed, One Needle, Light Weight Presser Bar Mechanism, Light Weight Needle Bar Drive Mechanism, Medium and Heavy Duty, Single Reservoir Enclosed Automatic Lubricating System, Filter Type Oil Return Pump, Lateral Loper Travel, Maximum Work Space to Right of Needle Bar 8 1/4 Inches.

513-11 Medium duty, for seaming trousers, coats and similar garments; seam Type SSa-1. Type 128 GAS needle. Maximum recommended speed 5500 R.P.M.

513-12 Same as 513-11 except equipped with feeding presser foot and comparable sewing parts.

513-13 Heavy duty, for binding mattress ticks and similar operations; seam Type BSa-1. Type 126 GS needle. Uses selvage edge binding, standard width 3/4 inch. Maximum recommended speed 5500 R.P.M.

STYLES OF MACHINES IN CLASS 514

Streamlined Flat Bed, Two Needle, Left Needle in Front, Independent Row, Light Weight Presser Bar Mechanism, Light Weight Needle Bar Drive Mechanism, Light and Medium Duty, Single Reservoir Enclosed Automatic Lubricating System, Filter Type Oil Return Pump, Lateral Loper Travel, Maximum Work Space to Right of Needle Bar 8 1/4 Inches.

514-21 (12 ga.)

514-22 (16 ga.) Light duty, for piecing sleeves, joining shoulders and setting sleeves of ordinary quality light weight shirts and similar garments; seam Type LSc-2. Type 108 GHS needle. Maximum recommended speed 5500 R.P.M.

STYLES OF MACHINES IN CLASS 515

Streamlined Flat Bed, Two Needle, Independent Row, Light Weight Presser Bar Mechanism, Light Weight Needle Bar Drive Mechanism, Heavy Duty, Single Reservoir Automatic Lubricating System, Filter Type Oil Return Pump, Lateral Loper Travel, Maximum Work Space to Right of Needle Bar 8 1/4 Inches.

515-21 (16 ga.)

515-22 (18 ga.) For felling overalls, coats, combination suits and similar garments, left needle in front; seam Type LSc-2. Type 128 GAS needle. Maximum recommended speed 5300 when sewing 7 S.P.I.; 5500 when sewing 10-14 S.P.I.

STYLES OF MACHINES IN CLASS 517

Streamlined Flat Bed, Two Needle, Independent Row, Needles Abreast, Light Weight Presser Bar Mechanism, Light Weight Needle Bar Driving Mechanism, Light and Heavy Duty, Single Reservoir Automatic Lubricating System, Filter Type Oil Return Pump, Lateral Looper Travel, Maximum Work Space to Right of Needle Bar 8 1/4 Inches.

517-21 (64 ga.) Light duty, for one operation folding and attaching "set-on" center plait and interlining strips to fronts of shirts and similar garments. Starts operation at neck. Plaits used in garment lengths and extend 1/4 inch beyond the rows of stitching; seam Type LSm-2. Type 108 GKS needle. Maximum recommended speed 5500 R.P.M.

STYLES OF MACHINES IN CLASS 519

Streamlined Flat Bed, Three Needle, Left Needle in Front, Independent Row, Light Weight Presser Bar Mechanism, Light Weight Needle Bar Drive Mechanism, Light and Heavy Duty, Single Reservoir Automatic Lubricating System, Filter Type Oil Return Pump, Lateral Looper Travel, Maximum Work Space to Right of Needle Bar 8 1/4 Inches.

519-31 (9 ga.) Heavy duty, for seaming windbreakers, mackinaws, lumber jackets and similar garments; seam Type LSb-3. Type 147 GKS needle. Maximum recommended speed 5000 R.P.M.

STYLES OF MACHINES IN CLASS 527

Streamlined Flat Bed, Medium Throw Machines, Two and Three Needles Abreast, Double Disc Take-up, One Looper, Needle Bearing Needle Bar Drive, Light Weight Presser Bar and Needle Bar Driving Mechanism, Single Reservoir Enclosed Automatic Lubricating System, Filter Type Oil Return Pump, Oil Pump Base Plate and Oil Siphon Assembly. Lateral Looper Travel, Work Space to Right of Needle Bar 7 3/4 Inches.

527-21 (16 ga.) Same as 527-22 except prepared for use with Galkin undertrimmer. Maximum recommended speed 2000 R.P.M.

527-22 (16 ga.) Two Needle, Plain Feed Machine, for making belt loops for trousers, overalls, bathrobes, and for similar operations on medium to medium heavy weight materials. Strips used in short lengths. Belt loops are 3/32 inch wider than needle spacing of machine. Seam specification 406-EFh-1. Type 128 GAS needle. Maximum recommended speed 5000 R.P.M.

527-23 (8 ga.)

527-24 (12 ga.) Two Needle, Plain Feed Machine, for attaching elastic bands in long lengths, garment lengths, or with ends joined, to rayon, silk, cotton, nylon and wool, flat, warp and ribbed knit garments, and for similar operations on light to medium weight material. Automatic stretching device and spool holder for elastic. Seam specification 406-LSb-1 inverted. Type 121 GS needle. Maximum recommended speed 5000 R.P.M.

STYLES OF MACHINES IN CLASS 528

Streamlined Flat Bed, Medium Throw Machines, Two and Three Needles Abreast, One Looper, Four and Five Thread Interlock Stitch, Light Weight Presser Bar and Needle Bar Driving Mechanism, Single Reservoir Enclosed Automatic Lubricating System, Filter Type Oil Return Pump and Oil Siphon Assembly, Oil Pan Base Plate, Lateral Looper Travel, Work Space to Right of Needle Bar 7 3/4 Inches.

STYLES OF MACHINES IN CLASS 528 (Continued)

528-21 (8 ga.)

528-22 (12 ga.) Two needle four thread interlock machine, for attaching collar-ettes to knitted undergarments, and for similar operations on light to medium weight material. For use with long length flat knit or ribbed knit strip cut at right angle to the wale or parallel with the wale. Wrench adjusted offset differential feed. Constant strip tension. Seam specification, 602-BSb-1. Type 121 GS needle. Standard finished width 1/2 inch. Maximum recommended speed 5000 R.P.M.

528-31 (16 ga.) Three needle five thread interlock machine, for single operation crotch seaming, and for similar operations on medium to medium heavy weight material. Wrench adjusted tandem differential feed. Seam specification, 605-FSa-1. Type 121 GBS needle. Maximum recommended speed 5000 R.P.M.

528-32 (16 ga.) Three needle five thread interlock machine, for attaching collar-ettes to knitted undergarments, and for similar operations on light to medium weight material. For use with long length ribbed knit strip cut at right angle to the wale or parallel with the wale. Wrench adjusted offset differential feed. Constant strip tension. Seam specification, 605-BSa-1. Type 121 GBS needle. Standard finished width 1 inch. Maximum recommended speed 5000 R.P.M.

NEEDLES

Each needle has both a type and size number. The type number denotes the kind of shank, point, length, groove, finish and other details. The size number, stamped on the needle shank, denotes the largest diameter of blade, measured midway between shank and eye. Collectively, type and size number represent the complete symbol, which is given on the label of all needles packaged and sold by Union Special.

To have orders promptly and accurately filled, forward the empty package, a sample needle, or the type and size number should be given. See description on packages. A complete order would read as follows: "1000 Needles, Type 121 GS, Size 080/032".

The type numbers of the needles recommended for each style of machine covered by this catalog are given in the machine style description. Other needles are available, but the ones indicated are those recommended to produce the most satisfactory results. The type numbers of the recommended needles, together with their description, and the sizes available are listed below:

<u>Type No.</u>	<u>Description</u>
108 GHS	Round shank, round point, extra short, double groove, struck groove, ball eye, spotted, ball point, chromium plated - sizes 070/027, 075/029, 080/032, 090/036, 100/040, 110/044, 125/049.
108 GKS	Round shank, round point, extra short, double groove, struck groove, oversize ball eye, spotted, chromium plated - sizes 080/032, 090/036, 100/040.
121 GS	Round shank, round point, short, double groove, struck groove, chromium plated - available in sizes 065/025, 070/027, 075/029, 080/032, 090/036, 100/040, 110/044, 125/049, 140/054.

NEEDLES (Continued)

<u>Type No.</u>	<u>Description</u>
121 GBS	Round shank, round point, short, single groove, struck groove, spotted, ball point, chromium plated - available in sizes 065/025, 070/027, 075/029, 080/032, 090/036, 100/040.
126 GS	Round shank, round point, short, double groove, struck groove, ball eye, chromium plated - available in sizes 080/032, 100/040, 054.
128 GAS	Round shank, round point, short, double groove, struck groove, ball eye, spotted, chromium plated - available in sizes 080/032, 090/036, 100/040, 110/044, 125/049, 140/054, 150/060, 170/067.
147 GKS	Round shank, round point, long double groove, struck groove, oversize ball eye, spotted, short point, standard eye and grooves, chromium plated - sizes 090/036, 100/040, 110/044, 125/049, 140/054.

Selection of the proper needle size should be determined by the size of thread used. Thread should pass freely through needle eye in order to produce a good stitch formation.

ORDERING REPAIR PARTS

ILLUSTRATIONS

This catalog has been so arranged as to simplify the ordering of repair parts. Exploded views of the various sections of the mechanism are shown so that the parts may be seen in their actual position in the machine. On the page opposite the illustration will be found the listing of the parts with their part numbers, descriptions and the number of pieces required in the particular view being shown.

The numbers in the first column are reference numbers only and indicate the position of that part in the illustration. The reference number should never be used in ordering parts. Always use the part number shown in the second column.

Those component parts of sub-assemblies which can be furnished for repairs are indicated by the fact that their descriptions are indented under the description of the main sub-assembly. Example:

65	29105 Z	Looper Drive Eccentric Assembly, for Class 513 -----	1
66	22559 A	Bearing Cap Screw, lower -----	2
67	22559 B	Bearing Cap Screw, upper -----	2
68	22894 C	Eccentric Set Screw -----	4
69	22894 D	Eccentric Spot Screw -----	1

It will be noted in the above example that the eccentric, ball stud and bearing are not listed. The reason for this is that the replacement of any of these parts individually is not recommended and the complete sub-assembly should be ordered.

In those cases where a part is common to all of the machines covered by this catalog, no specific usage will be mentioned in the description. However, when the parts for the various machines are not the same, the specific usage will be mentioned in the descriptions and, if necessary, the difference will be shown in the illustration.

ORDERING REPAIR PARTS (Continued)

At the back of the book will be found a numerical index of all the parts shown in the illustrations, which will facilitate locating the illustration and description when only the part number is known.

IDENTIFYING PARTS

Where the construction permits each part is stamped with its part number. On some smaller parts and on those where the construction does not permit, an identification letter is stamped to distinguish the part from similar ones.

All part numbers represent the same part, regardless of the catalog in which they appear.

USE GENUINE REPAIR PARTS

Success in the operation of these machines can be secured only by the use of genuine UNION SPECIAL Repair Parts as furnished by the Union Special Corporation, its subsidiaries and authorized distributors. They are designed according to the most approved scientific principles and made with the utmost precision. The maximum efficiency and durability are assured.

TERMS

Prices are strictly net cash and subject to change without notice. All shipments are forwarded at the buyer's risk f.o.b. shipping point. Parcel post shipments are insured unless otherwise directed. A charge is made to cover the postage and insurance.

OILING AND THREADING INSTRUCTIONS

The oil has been drained from the machine before shipping and the reservoir must be filled before beginning to operate. Use a straight mineral oil with a Saybolt viscosity of 90 to 125 seconds at 100° Fahrenheit.

Oil is filled at the spring cap in the top cover and the level is checked at the sight gauge on the front of the machine. The oil level should be maintained between the red lines on the gauge. The capacity of the oil reservoir is 12 ounces.

The machine is automatically lubricated and no oiling other than keeping the main reservoir filled is necessary.

A daily check before the morning start should be made and oil added if required. Oil which has gone through the machine is filtered and pumped back into the main reservoir making too frequent oilings unnecessary. Excessive oil in the main reservoir may be drained at the plug screw in the main frame directly under the handwheel.

Figure 1 shows the manner in which a two needle machine is threaded. Single and three needle machines are threaded in substantially the same manner. The loop-er threading of the various classes is indicated in the inserts.

Figure 2 shows the manner in which a two needle Class 528 machine is threaded. Three needle machines are threaded in substantially the same manner. Class 527 machines are basically threaded in the same manner without a spreader thread.

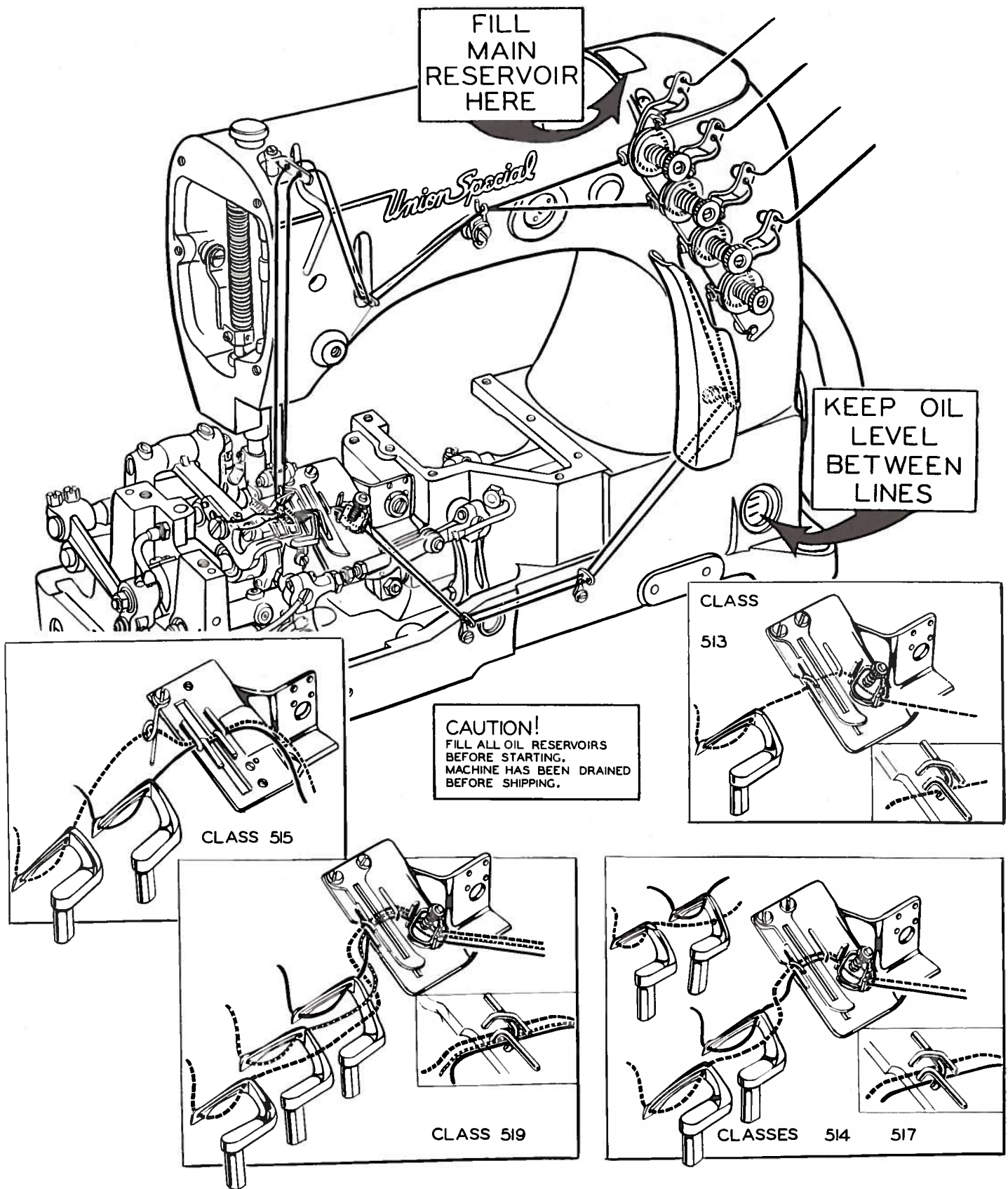
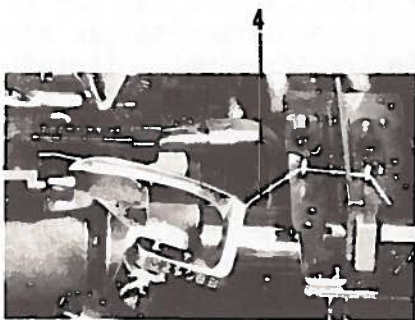
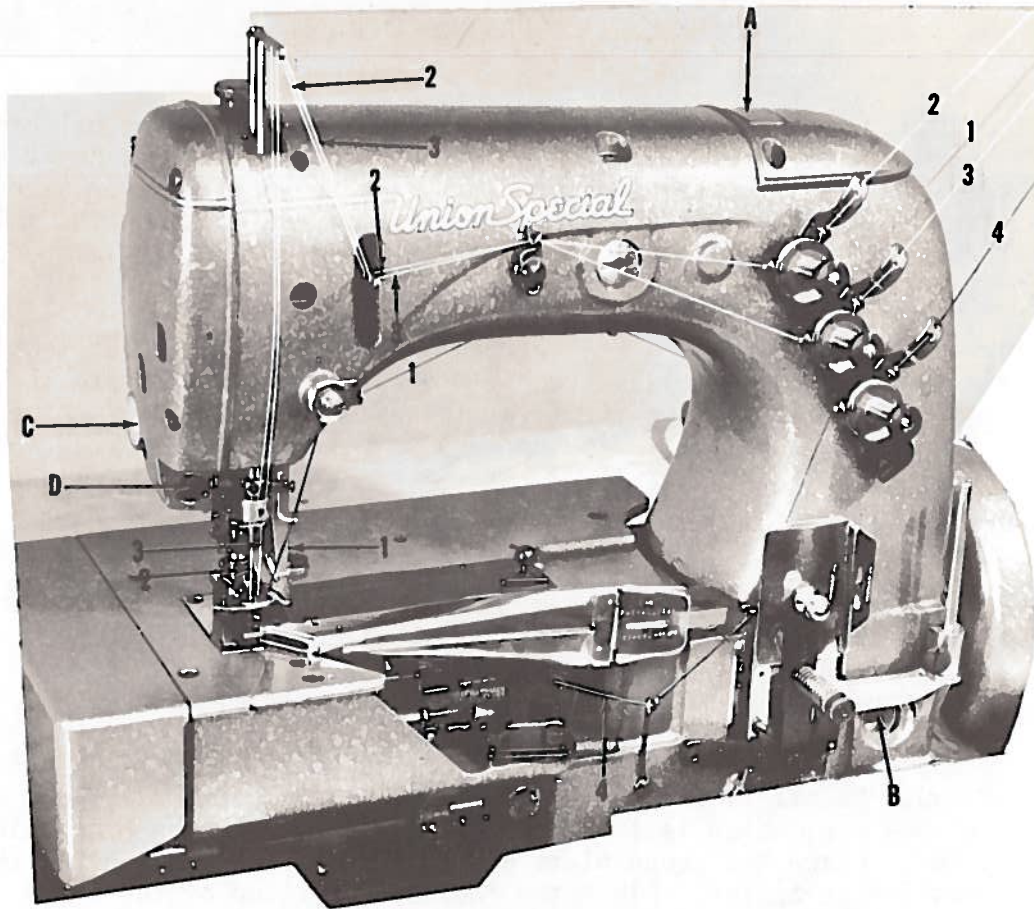
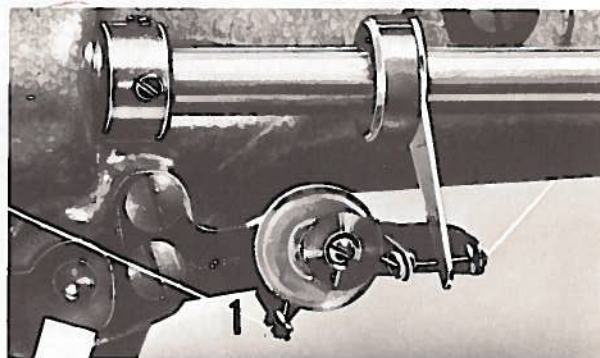


Fig. 1



CLASS 527 & 528



CLASS 528 ONLY

Fig. 2

Oil is filled at spring cap "A" in top cover and the level is checked at sight gauge "B". On Class 528 machines, if oil level rises above the center of gauge "C" and does not recede, this indicates the oil siphon assembly could require priming. Drain excess oil by removing plug screw "D".

ADJUSTING INSTRUCTIONS

1. Check the location of the needle lever stud with respect to the oil groove. This stud is set correctly when the arrow points up. Also check the position of the oil tube inside the arm casting which lubricates the needle lever stud. Make sure that it is tilted downwardly and that its delivery end contacts the wall of the bed casting just above the notch in the needle lever thrust collar. Do not allow oil tube to rest on the needle lever.
2. Clean the machine thoroughly. Fill oiling system and oil all bearings. Run machine slowly for a minute to allow the oil wicks to carry the oil to the bearings. Then repeat the oiling and run for five minutes at maximum recommended speed. Inspect oiling system for leaks. Wipe up surplus oil, particularly around the take-up.
3. Insert new needle/s (Type and size required).
4. On two and three needle machines check to ensure that needles center in needle holes of throat plate. Turn needle bar if required.
5. Check the synchronization of looper and needle motions as follows:

Use gauge No. 21227 AC for Styles 513-13, 527-21, 527-22 and Classes 514, 515, 517, 519; gauge No. 21227 R for Styles 513-11, 513-12, 527-23, 527-24 and Class 528. Insert the pin, which is included with the gauge, in the back hole in the looper rocker. Place the gauge plate on the throat plate seat using the throat plate screws for attaching. Place the indicator portion of the gauge in the needle thread take-up wire holder with the point to the right. Do not tighten the set screw at this time. Turn the handwheel in operating direction until the pin in the looper rocker contacts the edge of the plate and set the indicator so that the pointer rests firmly enough against the needle bar thread eyelet screw to register slightly on the scale. Tighten the set screw and note indicator reading. Turn the handwheel in the reverse direction until the pin again contacts the plate. If the motions are in synchronization the pointer on the indicator will return to the same reading. A variation of one graduation on the scale is allowable. If the reading is higher on the scale, when the handwheel is turned in the operating direction, the looper drive lever rocker will have to be moved to the rear. If the reading is lower, this rocker will have to be moved to the front. Remove the oil reservoir top cover and drain the reservoir. On Classes 513, 514 and 517, loosen the screws in the looper drive eccentric mechanism and move the eccentric as far to the right as it will go. Then drive the rear bushing to the front or the middle bushing to the rear. To avoid distorting the parts remove the plug screw in the rear bushing before driving to the front and place a horse shoe shape metal washer approximately 1/16 inch thick between the looper drive lever and the adjacent bushing when driving the bushing to the rear. On all Classes except 513, 514 and 517 loosen the screw in the looper drive lever. Move the looper drive lever shaft synchronizing stud forward or backward as required. A light tap with a small hammer is all that is required to move this stud. Then, using the looper drive lever to take up the end play between the looper drive lever shaft and its synchronizing plug, tighten the looper drive lever on the shaft. Retighten all screws and seal the reservoir cover in position with Permatex Gasket Cement to prevent oil leakage. A convenient 1/2 pint can including brush, is identified by the symbol "CE5C", and will be promptly furnished by Union Special Corporation. All automobile supply shops carry it.

6. If the gauge is not available, synchronization may be checked as follows:

Insert the looper/s in the looper rocker and turn the pulley in the operating direction until the looper point/s move to the left and are even with the needle/s. Note the height of the eye of the needle/s with respect to the looper point/s, then turn the pulley in the reverse direction until the looper point/s again move to the left and are even with the needle/s. If the motions synchronize, the height of the eye of the needle/s with respect to the looper point/s will be the same. A variation of .005 inch is allowable. If the distance from the eye of the needle/s to the point of the looper/s is longest when the pulley is turned in operating direction, move the looper drive lever rocker to the rear. Moving it in the opposite direction acts the reverse.

NOTE: The remainder of this section reflects adjusting instructions applicable to machines in all Classes except 527 and 528. They will follow in a separate section.

7. Set the left main shaft so that the take-up has equal clearance on each side of the shield. The space should be from .008 to .010 inch.
8. With looper/s at EXTREME RIGHT end of travel, the looper point/s should be set 5/32 inch from center line of needle/s for Class 513; 1/8 inch for Class 517. Set the point of rear looper to center line of rear needle 1/8 inch for Class 514; 5/32 inch for Class 515. Set the point of center looper to center line of center needle 5/32 inch for Class 519.
9. When the looper/s move to the left, their point/s should pass the rear of the needle/s as close as possible without contacting.
10. Set the needle bar so that the top/s of the needle eye/s are 1/64 inch below the looper/s when point/s of looper/s moving to the left are even with left side of the needle/s.
11. Set the feed dog so that the tips of the teeth are parallel with and 3/64 inch above the throat plate at high point of travel. Adjust the supporting screw, under the feed dog, to maintain this setting.
12. Space the feed dog in the throat plate slots so that there is a clearance of at least 1/64 inch at all points and the rear teeth pass beyond the rear of the presser foot. This is accomplished by loosening the screws which clamp the feed rocker arm to the feed rocker and moving the rocker.
13. For all Classes in this section except 515, cast-off plate is set correctly when there is equal clearance on each side of take-up and the space is from .011 to .016 inch. There should be a space of 1/32 inch between it and the shield to provide clearance for the looper thread.
14. Draw looper and needle threads into the machine and start operating on a piece of fabric. Refer to applicable threading diagram.
15. On Class 515 machines, set the looper thread retainer finger so that the looper thread is cast off just after the eye of the needle comes up out of the material. The height of the retainer affects the control of the looper thread as the looper moves to the left. More looper thread is given to the stitch when the retainer is raised. However, if the retainer is raised too high the looper thread may be wiped under the looper causing triangle skips or pulled down stitches. This can be checked by observing the action of the looper thread as the looper moves to the left.

16. The tension on the needle threads should be as tight as is consistent with their strength and avoid puckering the fabric.
17. On all Classes in this section except 515 the looper thread nipper, adjacent to the looper thread take-up, should apply a barely noticeable tension on the threads - just sufficient to steady them. The looper thread tension on the front of the machine should apply a slightly greater tension than that applied by the looper thread nipper. The combined tension applied to each looper thread by the looper nipper and looper thread tension on the front of the machine should equal approximately one-fourth that applied to each needle thread.
18. See that the presser foot hinges freely and that its under surface is in alignment with the feed dog.
19. Check the stitch range and set the stitch length as required. The length of the stitch is altered by turning the stitch adjusting screw located under the left end of the cloth plate. Turning the screw clockwise shortens the stitches. The lock nut has a left thread.
20. Set the needle rear guard horizontally so that it barely contacts the needles when at its most forward point of travel. It should be set as low as possible, yet have its vertical faces remain in contact with the needles until the points of the loopers moving to the left are even with the needles.
21. Regulate the presser spring regulating screw so that it exerts only enough pressure on the presser foot to feed the work uniformly. This is located directly behind the needle bar in the head of the machine.
22. The tension release should be set so that it begins to function when the presser foot has been raised to within 1/8 inch of the end of its travel and should be entirely released when the foot reaches its high position.

NOTE: This section reflects adjusting instructions applicable to Class 527 and 528 machines.

1. Set the left main shaft so that the take-up has equal clearance on each side of the shield. The space should be from .008 to .010 inch.
2. In Class 527 machines, with looper at EXTREME RIGHT end of travel, the looper point should be set 1/4 inch from center line of right needle for No. 8 gauge, 7/32 inch from No. 12 gauge and 3/16 inch for No. 16 gauge machines. This dimension should be 7/32 inch for all Styles and gauges in Class 528.
3. Set the needle bar so that the top of the left needle eye is 3/64 inch below the looper, when the point of looper, moving to the left, is even with the left side of this needle.
4. When the looper moves to the left, and its point is even with the center of the right needle, there should be a space of .005 inch between the needle and looper. Recheck the position of the needles with respect to the back of the looper.
5. If machine is fitted with a looper needle guard it is set correctly when it moves to the left and barely touches the front of the right needle. It will then deflect the left needle toward the rear, keeping it close to looper point.
6. Set the feed dog so that the tips of the teeth are parallel with and 3/64 inch above the throat plate at high point of travel. Adjust the supporting screw, under the feed dog, to maintain this setting.
7. On Class 527 machines, space the feed dog in the throat plate slots so that there is a clearance of at least 1/64 inch at all points and the rear teeth pass beyond the rear of the presser foot. This is accomplished by loosening the screws which clamp the feed rocker arm to the feed rocker and moving the rocker.
8. On Class 528 machines, set the differential feed control to secure the maximum stroke by moving the stud in the feed rocker segment slot plate as high as possible. Space the feed dogs in the throat plate slots so there is equal clearance at both ends of the feed stroke. This is accomplished by loosening the screws which clamp the feed rocker arm to the feed rocker and moving the feed dog. A clearance of at least 1/64 inch should be allowed at all points, and the rear teeth must pass the rear of the presser foot.
9. Draw the needle and looper threads into the machine and start operating on a piece of fabric. Refer to applicable threading diagram. Machine equipped with spreader should sew perfectly without spreader thread.
10. The looper thread take-up is not spotted on the main shaft and consequently can be set to compensate for varying conditions. It is set correctly when the looper thread is just cast off the highest lobe of the take-up when the points of the needles are clearly visible below the under side of the looper. The looper thread eyelets located on the take-up cast off plate are adjustable and their setting determines the amount of thread pulled off by the take-up. Moving them to the rear causes more thread to be pulled from the cones and moving them forward causes less thread to be pulled. They are set correctly when the looper thread just becomes taut as the looper reaches its extreme position to the left.

The retaining finger controls the amount of slack thread in the system and it is set correctly when it prevents the looper thread triangle from being wiped under the blade of the looper when the looper moves from right to left.

11. The tensions on the needle threads should be only sufficient to produce uniform stitches on the under surface of the fabric.
12. The looper thread tension should be just sufficient to steady the thread.
13. Check the stitch range and set the stitch length as required. The length of stitch is altered by turning the stitch adjustment screw located under the left end of the cloth plate. Turning the screw clockwise shortens the stitch. The lock nut has a left thread. Any change in stitch length will necessitate a change in needle guard setting.
14. On Class 527 machines, set the needle rear guard horizontally so that it barely contacts the right needle when at its most forward point of travel. It should be set as low as possible, yet have its vertical face remain in contact with the right needle until the point of the looper moving to the left is even with this needle.
15. On Class 528 machines, set the feed bar needle guard so that it just contacts the right needle as the looper point reaches the right side of the needle. Set the height of the guard at this point so that 1/16 inch of the right needle point is below the top of the needle guarding surface. Due to the design of the needle guard there will be a slight clearance between the left needle and its guarding surface. This is a desirable condition.

NOTE: Any change in stitch length will necessitate re-setting the needle guard.

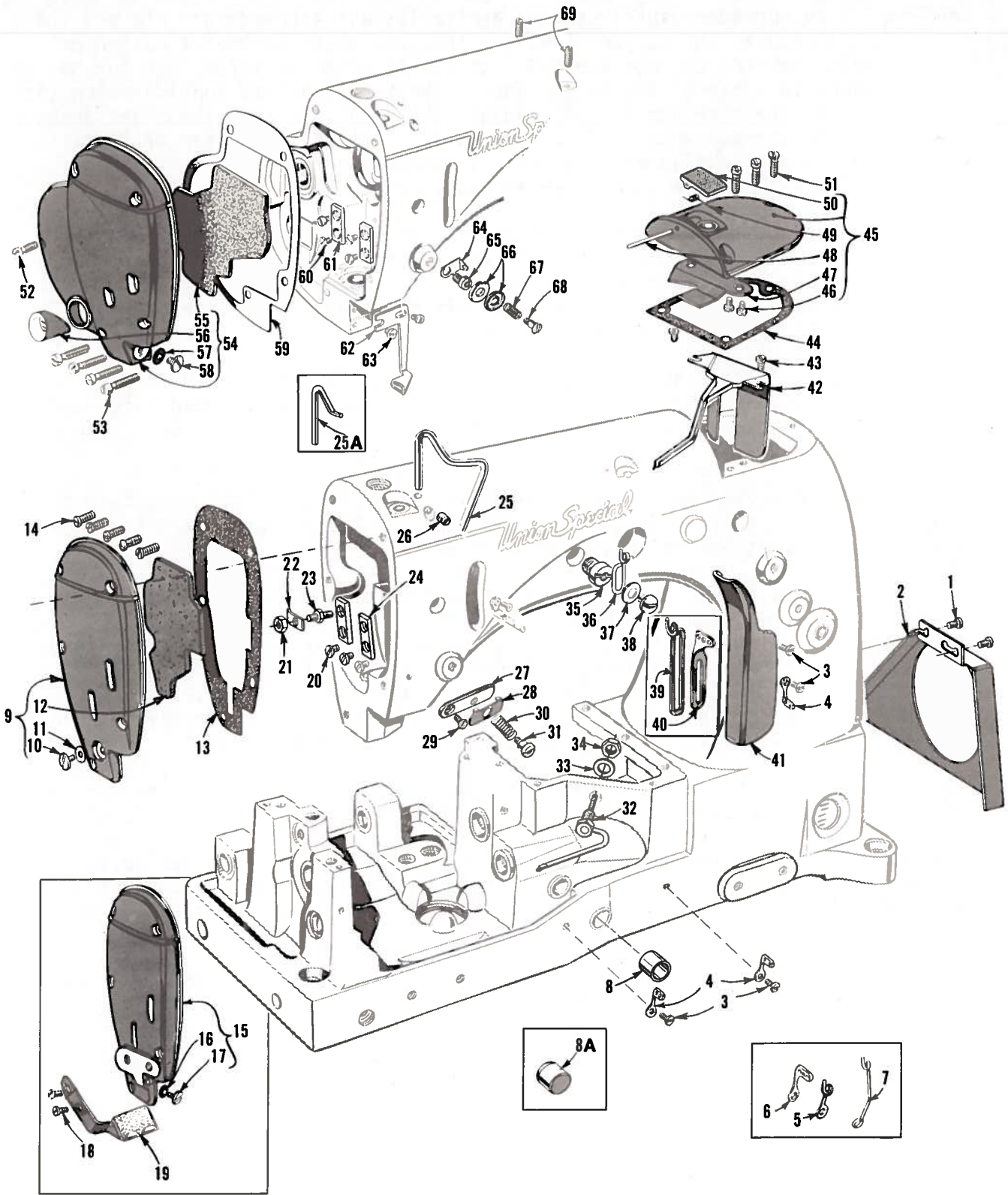
16. Regulate the presser spring regulating screw located directly behind the needle bar in the head of the machine so that it exerts only enough pressure on presser foot to feed the work uniformly when a slight tension is placed on the fabric.
17. The tension release should be set so that it begins to function when the presser foot has been raised to within 1/8 inch of the end of its travel and should be entirely released when the foot reaches its high position.

NOTE: The remainder of this section applies to Class 528 Only.

18. Check the distance between centers of the spreader connecting rod at left end of machine. The measurement should be 2 5/32 inch. See that it has sufficient clearance. This clearance is obtained by swinging the lever on the left end of the rock shaft.
19. Use spreader gauge No. 21227 C-8 for adjusting No. 8 gauge machines, No. 21227 C-12 for No. 12 gauge or No. 21227 C-16 for No. 16 gauge machines. These gauges are for adjusting the travel of the spreader and location of the spreader holder. Turn the pulley in the operating direction until the spreader reaches its extreme right position. Place the spreader gauge in the spreader holder and set the spreader gauge and its holder so that it point is even with and barely contacts the center of the left needle shank. Set the ball stud in the segment lever on the rock shaft so that the travel of the spreader gauge equals the space from its left end to the line on the spreader gauge. The holder is set correctly when the needles are at high position and the line on the spreader gauge is directly in front of the center of the left needle. See that the spreader holder is in position to prevent the spreader from moving vertically.

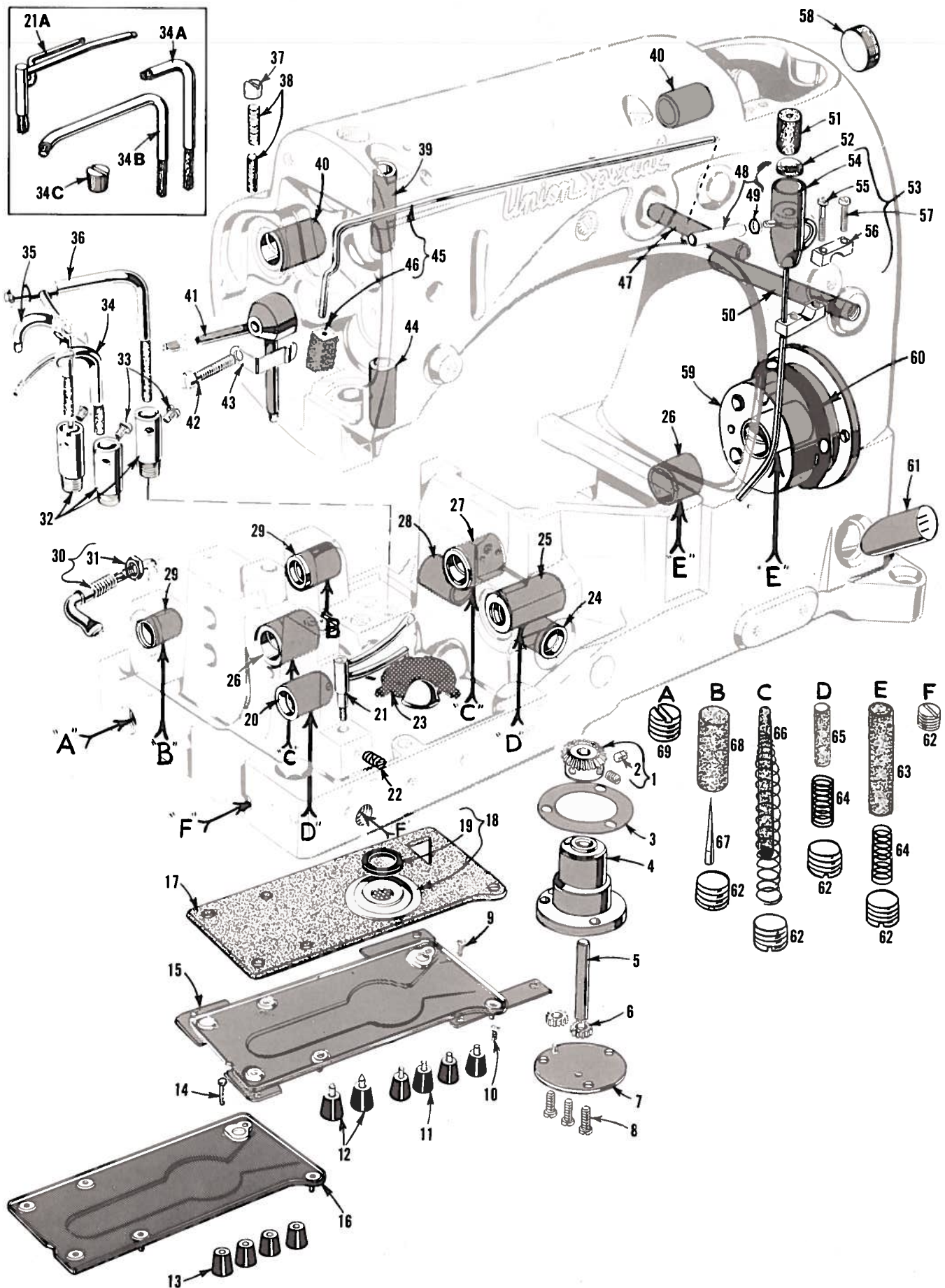
NOTE: If the spreader gauges are not available, use the spreader and set the ball stud in the segment lever on the rock shaft so that a motion of $\frac{9}{16}$ inch for 8 gauge and $\frac{5}{8}$ inch for 12 gauge or $\frac{11}{16}$ inch for No. 16 gauge is imparted to the spreader without taking into consideration the arc of the spreader travel. Adjust the holder so that the short prong of the spreader passes $\frac{7}{32}$ inch to the left of the center of the left needle when the spreader is at its extreme left position. Gauge No. 21225-7/32 can be used advantageously in making this adjustment.

20. Replace spreader gauge with spreader and set it so that the space between its under surface and the upper surface of the throat plate is $\frac{21}{64}$ inch. Swing the spreader so that its short prong passes $\frac{7}{32}$ inch to the left of the center of the left needle when at its farthest left position. Use gauge Nos. 21227 V and 21225-7/32 for making these adjustments.
21. Set the thread guide, cooperating with the spreader thread pull-off, parallel with the rock shaft. Set the pull-off in the center of the thread guide and so that the front edge of the arm just touches the thread when needles are at low position.
22. Set the stationary spreader thread guide No. 52844 A barely far enough to the right so that it will guide the spreader thread into the spreader notch when the spreader is at extreme right position.
23. Set the moving spreader thread eyelet, attached to the needle bar, so that a Type 121 GS needle shank, which is $.080$ inch diameter, will barely pass between the under side of the moving eyelet and top of the stationary thread guide No. 52844 A at their closest approach. Turn the eyelet holder toward the front of the machine so that the eyelet does not cover the right needle set screw. Turn the moving spreader thread eyelet so that its thread eye is directly in front of the front end of slot in the stationary spreader thread eyelet.
24. Draw the spreader thread into the machine and check the action of the spreader and associated parts.
25. The spreader timing should be adjusted, by positioning the spreader drive eccentric on the lower crank shaft, so that the spreader sheds its thread when the right needle point, in its downward travel, is even with the top of the looper.
26. Two separate sets of tension discs are applied on the spreader thread - one at the rear, and the other at the front of the machine. Check the tension applied to each set. There is no adjustment for the front set, except to alter the length of the spring. This set should apply only a slight tension. The rear set should always apply a slightly greater tension than the front set. The combined tension on both sets should be only sufficient to produce uniform stitches on upper surface of fabric.
27. Adjust the motion of the differential feed so that the machine will sew across the wale of the fabric without stretching it.
28. Set the collar on the presser bar to prevent the presser foot from being raised higher than the moving parts will permit. The space between the under surface of the presser foot at high position and the upper surface of the throat plate should be $\frac{3}{16}$ inch. Use gauge No. 21227 V for making this adjustment.



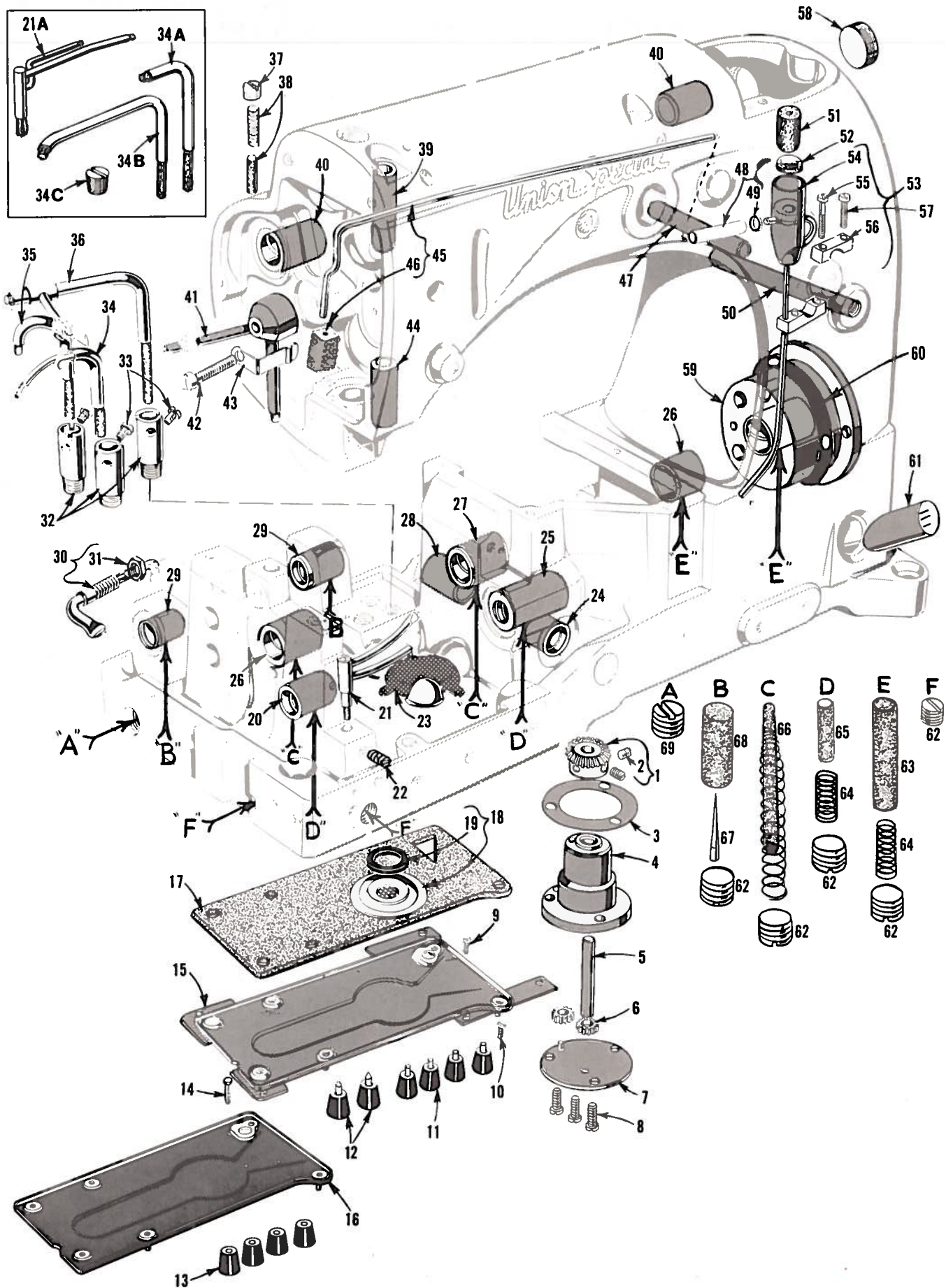
MAIN FRAME AND MISCELLANEOUS COVERS

Ref. No.	Part No.	Description	Amt. Req.
1	93	Screw -----	2
2	21375 BQ	Belt Guard -----	1
3	98 A	Screw -----	2, 3, 4
4	158 B	Thread Eyelet, for Classes 514, 515, 517 -----	3
5	52 A	Thread Eyelet, for Class 513 -----	3
-	52 A	Thread Eyelet, for Classes 527, 528 -----	1
6	158 A	Thread Eyelet, for Class 519 -----	3
7	52958 B	Frame Thread Eyelet, for Classes 527, 528 -----	1
8	51242 Z	Front Looper Drive Lever Shaft Bushing, for Classes 513, 514, 517 -----	1
8A	52942 Y	Looper Drive Lever Shaft Synchronizing Stud, for Classes 515, 519, 527, 528 -----	1
9	51282 YW	Head Cover, for Classes 513, 514, 515, 527 -----	1
10	22542	Screw -----	1
11	52882 W	Gasket -----	1
12	51282 AC	Felt Liner -----	1
13	51282 Z	Gasket, for all Classes except 528 -----	1
14	22569 B	Screw, for all Classes except 528 -----	5
15	51782 AW	Head Cover, for Classes 517, 519 -----	1
16	52882 W	Gasket -----	1
17	22542	Screw -----	1
18	22569 C	Screw, for Class 519 -----	2
19	21396 BP	Needle Thread Lubricator, for Class 519 -----	1
20	22513	Screw, for all Classes except 528 -----	3
21	7947	Nut, for all Classes except 528 -----	1
22	51294 P	Oil Tube Clamp, for all Classes except 528 -----	1
23	51294 R	Screw, for all Classes except 528 -----	1
24	35731 A	Presser Bar Connecting Guide Plate, for all Classes except 528 -----	2
25	51270 B	Needle Thread Take-up Wire, for all Classes except 527, 528 -----	1
25A	52970 T	Take-up Wire, for Class 527 -----	1
26	95	Screw, for all Classes except 528 -----	1
27	43296	Nipper Spring Base, for Styles 513-11, 513-12 -----	1
28	57 WB	Nipper Spring Plate, for Styles 513-11, 513-12 -----	1
29	605 A	Screw, for Styles 513-11, 513-12 -----	1
30	15438 C	Nipper Spring, for Styles 513-11, 513-12 -----	1
31	57 WD	Nipper Spring Stud, for Styles 513-11, 513-12 -----	1
32	52894 AM	Oil Tube, for looper connecting rod ball joint, right, for Classes 513, 514, 517 -----	1
33	6042 A	Washer, for Classes 513, 514, 517 -----	1
34	258 A	Nut, for Classes 513, 514, 517 -----	1
35	22889 A	Adapter Screw -----	1
36	51758	Frame Needle Thread Eyelet, for Classes 514, 515, 517, 527 -----	1
37	20	Washer -----	1
38	22848	Screw -----	1
39	539	Frame Needle Thread Eyelet, for Classes 513, 515, 528 -----	1
40	51858	Frame Needle Thread Eyelet, for Class 519 -----	1
41	51291 A	Looper Thread Guard, for all Classes except 528 -----	1
42	56382 AC	Needle Lever Bearing Oiler and Baffle Plate Assembly -----	1
43	90	Screw -----	2
44	52882 P	Gasket -----	1
45	52882 AD	Crank Chamber Cover, upper -----	1
46	90	Screw -----	2
47	52882 AA	Oil Drip Plate -----	1
48	50-789 Blk.	Pin -----	1
49	52882 AC	Spring -----	1
50	39582 L	Oil Cap -----	1
51	22541 B	Screw -----	3
52	22572 A	Screw, for Class 528 -----	1
53	294	Screw, for Class 528 -----	4
54	52882 RW	Head Cover, for Class 528 -----	1
55	52882 Z	Felt Liner -----	1
56	52894 AN	Oil Gauge -----	1
57	52882 W	Gasket -----	1
58	22542	Screw -----	1
59	52882 S	Gasket, for Class 528 -----	1
60	22513	Screw, for Class 528 -----	4
61	35731 A	Presser Bar Connection Guide Plate, for Class 528 -----	2
62	52844 A	Thread Guide, for Class 528 -----	1
63	90	Screw, for Class 528 -----	2
64	35582 B	Thread Guide, for Class 528 -----	1
65	22517 C	Supplementary Tension Screw, front, for Class 528 -----	1
66	15438 B	Supplementary Tension Disc, for Class 528 -----	2
67	15438 C	Supplementary Tension Spring, front, for Class 528 -----	1
68	15438 D	Supplementary Tension Stud, for Class 528 -----	1
69	719	Screw -----	2



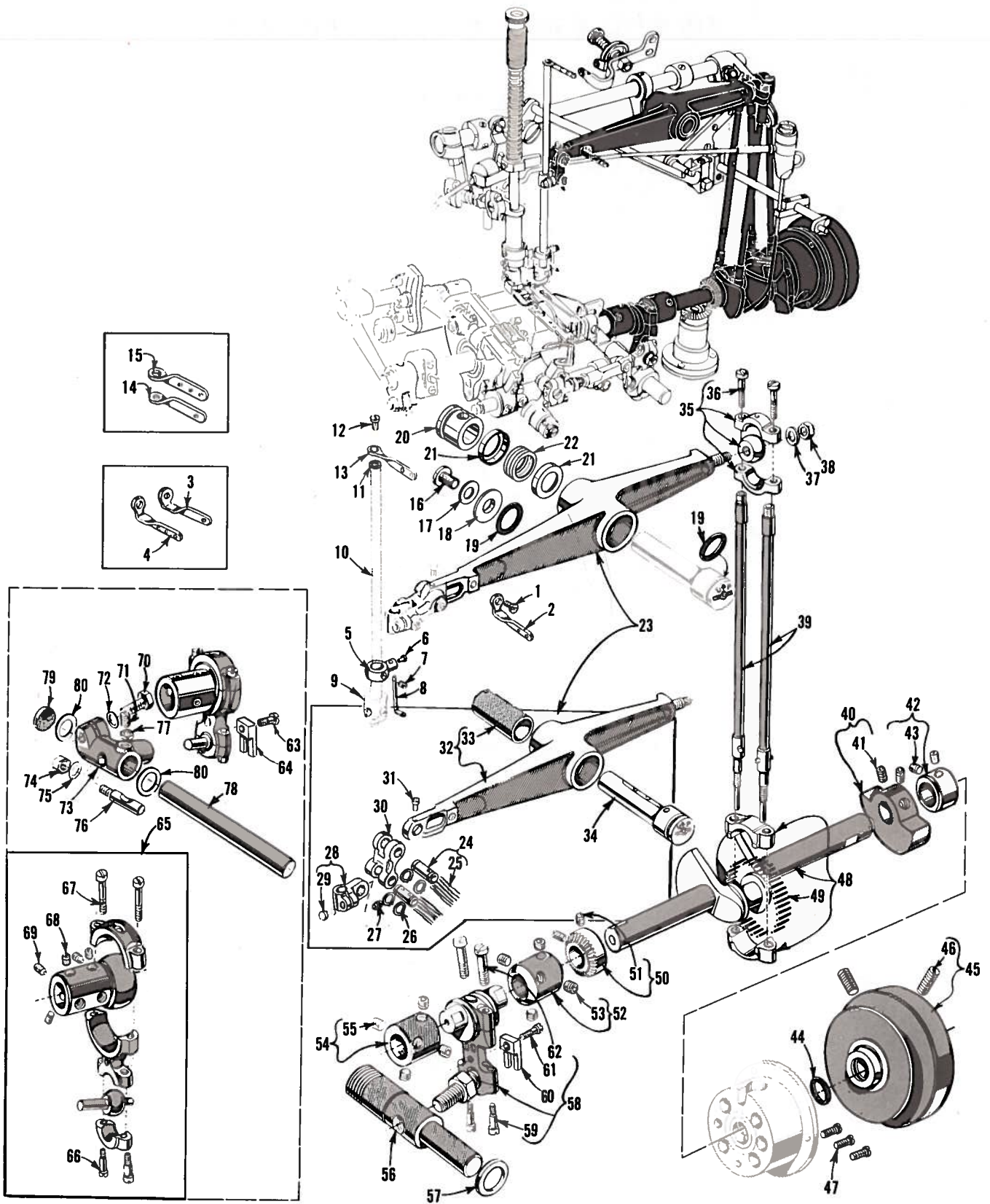
MAIN FRAME, BUSHINGS AND MISCELLANEOUS PARTS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	51493 BQ	Pump Driven Gear -----	1
2	531	Screw -----	2
3	643-127 Blk.	Gasket -----	1
4	51493 AG	Oil Pump Housing -----	1
5	51493 D	Oil Pump Driving Shaft -----	1
6	51493 E	Driving Shaft Gear -----	2
7	51493 AH	Oil Pump Housing Cover -----	1
8	22569 B	Screw -----	3
9	22645 H-64	Screw -----	1
10	22823 A	Screw, for Class 528 -----	1
-	22823 A	Screw, for all Classes except 528 -----	2
11	39595	Mounting Isolators, for Class 528 -----	4
12	51295 B	Mounting Isolators, for Class 528 -----	2
13	51295 A	Mounting Isolators, for all Classes except 528 -----	4
14	22823 B	Screw -----	1
15	51493 AZ	Oil Pan Base Plate, for Class 528 -----	1
16	51493 AY	Oil Pan Base Plate, for all Classes except 528 -----	1
17	51493 BG	Base Plate Oil Pad -----	1
18	51493 BH	Filter Cap Assembly -----	1
19	51493 BJ	Washer, sponge rubber -----	1
20	52944 T	Looper Rocker Shaft Bushing, left -----	1
21	52894 AK	Oil Tube, for looper rocker and left ball joint, for all Classes except 517 -----	1
21A	51794 C	Oil Tube for looper rocker ball joint, left, for Class 517 -----	1
22	22560 B	Screw -----	1
23	51493 BK	Lint Filter Screen -----	1
24	52942 W	Looper Drive Lever Shaft Bushing, front, for Classes 515, 519, 527, 528 -----	1
-	51242 R	Looper Drive Lever Shaft Bushing, center, for Classes 513, 514, 517 -----	1
25	52944 U	Looper Rocker Shaft Bushing, right -----	1
26	52890 C	Main Shaft Bushing, left and right intermediate -----	2
27	51290 T	Main Shaft Bushing, left intermediate -----	1
28	57842 B	Looper Drive Lever Shaft Bushing, rear, for Classes 515, 519, 527, 528 -----	1
-	51242 S	Looper Drive Lever Shaft Bushing, rear, for Classes 513, 514, 517 -----	1
29	52936	Feed Rocker Shaft Bushing, left and right -----	2
30	660-136	Oil Tube, for feed crank link -----	1
31	258 A	Nut -----	1
32	52894 AB	Oil Tube Holder, for Class 528 -----	3
-	52894 AB	Oil Tube Holder, for Classes 513, 514, 515, 519, 527 -----	1
-	52894 AB	Oil Tube Holder, for Class 517 -----	2
33	90	Screw, for Class 528 -----	3
-	90	Screw, for Classes 513, 514, 515, 519, 527 -----	1
-	90	Screw, for Class 517 -----	2
34 thru 69		See following page	



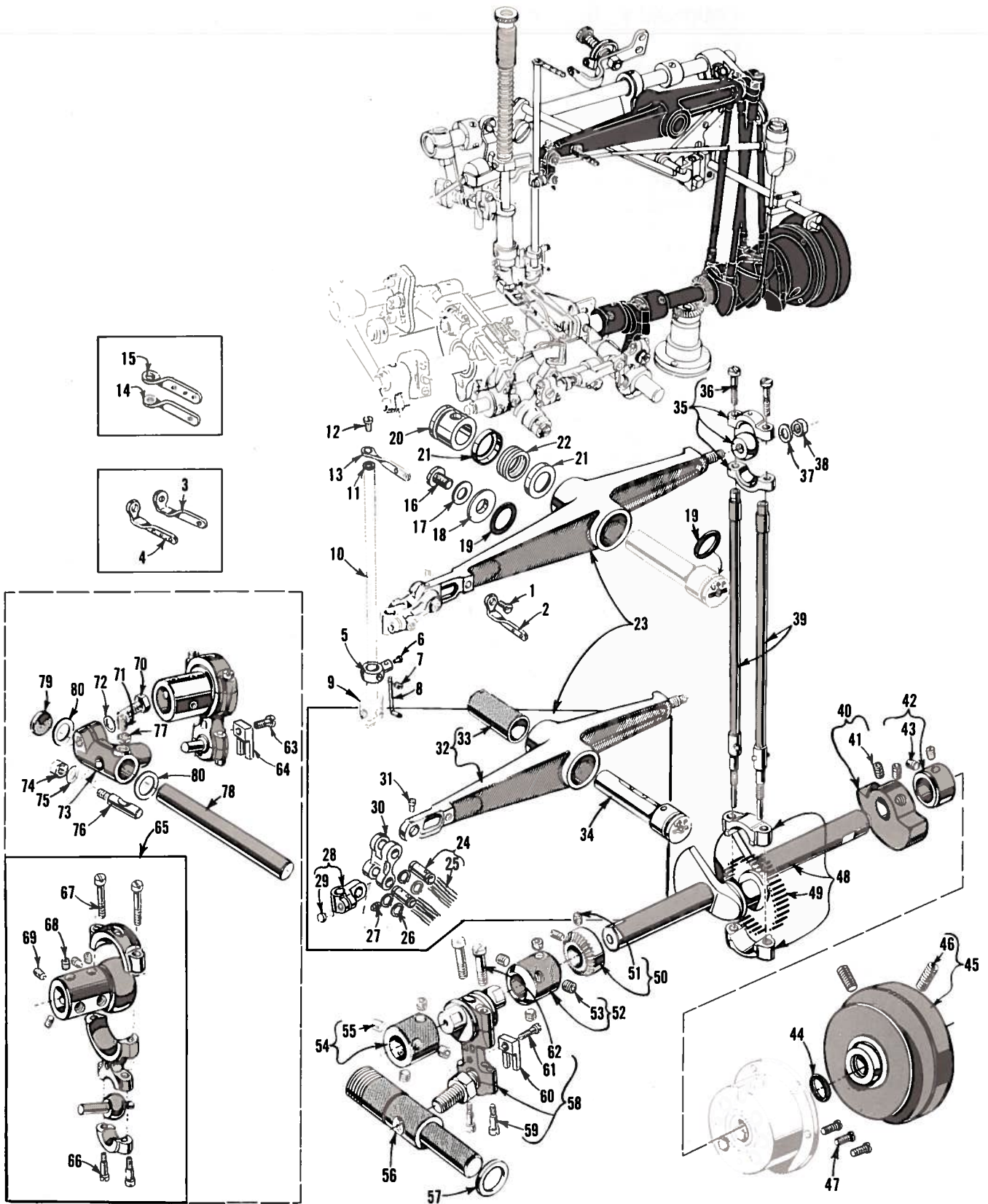
MAIN FRAME, BUSHINGS AND MISCELLANEOUS PARTS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1 thru 33		See preceding page	
34	52794 G	Oil Tube, for feed lift and looper avoid eccentrics, for all Classes except 517 -----	1
34A	51794 A	Oil Tube, for looper avoid eccentric, for Class 517 --	1
34B	51193 S	Oil Tube, for feed lift eccentric, for Class 517 ----	1
34C	22571 B	Plug Screw, for Classes 513, 514, 515, 519, 527 -----	1
35	52894 AD	Oil Tube, for differential feed bar shaft, for Class 528 -----	1
36	52894 AE	Oil Tube, for differential feed bar guide, for Class 528 -----	1
37	22706 A	Plug Screw, for Class 528 -----	1
38	666-99	Oil Wick, with spring, for spreader rocker shaft, for Class 528 -----	1
39	51254 C	Needle Bar Bushing, upper -----	1
40	52890 C	Rocker Shaft Bushing, upper left and right, for Class 528 -----	2
41	52894 K	Oil Tube Assembly, for Class 528 -----	1
42	294	Screw, for Class 528 -----	1
43	52994 V	Oil Siphon Clamp, for Class 528 -----	1
44	51154 D	Needle Bar Bushing, lower, for Class 528 -----	1
-	51254 D	Needle Bar Bushing, lower, for all Classes except 528 -----	1
45	52994 U	Oil Siphon Tube, for Class 528 -----	1
-	51294 M	Oil Siphon Tube, for all Classes except 528 -----	1
46	666-214	Felt Lint Filter -----	1
47	52883 R	Presser Foot Lifter Lever Bushing -----	1
48	51294 Y	Oil Tube Connection, for Class 528 -----	1
-	51294 Z	Oil Tube Connection, for all Classes except 528 -----	1
49	21212	Oil Siphon Connection Locking Ring -----	2
50	21657 X	Tension Release Lever Shaft Bushing -----	1
51	666-201	Felt Plug -----	1
52	666-209	Siphon Cup Disc, felt -----	1
53	51294 U	Oil Siphon Assembly -----	1
54	643-263 Blk.	Siphon -----	1
55	22729 B	Screw -----	1
56	51294 K	Clamp, upper -----	1
57	22729 A	Screw -----	1
58	22539 D	Plug Screw, for Class 528 -----	1
59	52891 B	Crankshaft Bushing Housing, including bushing -----	1
60	56390 E	Crankshaft Bearing Housing Gasket -----	1
61	50-648 Blk.	Lucite Oil Gauge -----	1
62	22571 A	Plug Screw, for Class 528 -----	18
-	22571 A	Plug Screw, for all Classes except 528 -----	15
63	666-114	Oil Wick, for right main shaft bearing -----	2
64	35178 D	Spring -----	4
65	666-65	Oil Wick, for looper rocker shaft -----	2
66	666-118	Oil Wick, for left main shaft bearing -----	2
67	666-179	Wedge Pin -----	2
68	666-111	Oil Wick, for feed rocker shaft -----	2
69	22539 H	Plug Screw -----	1



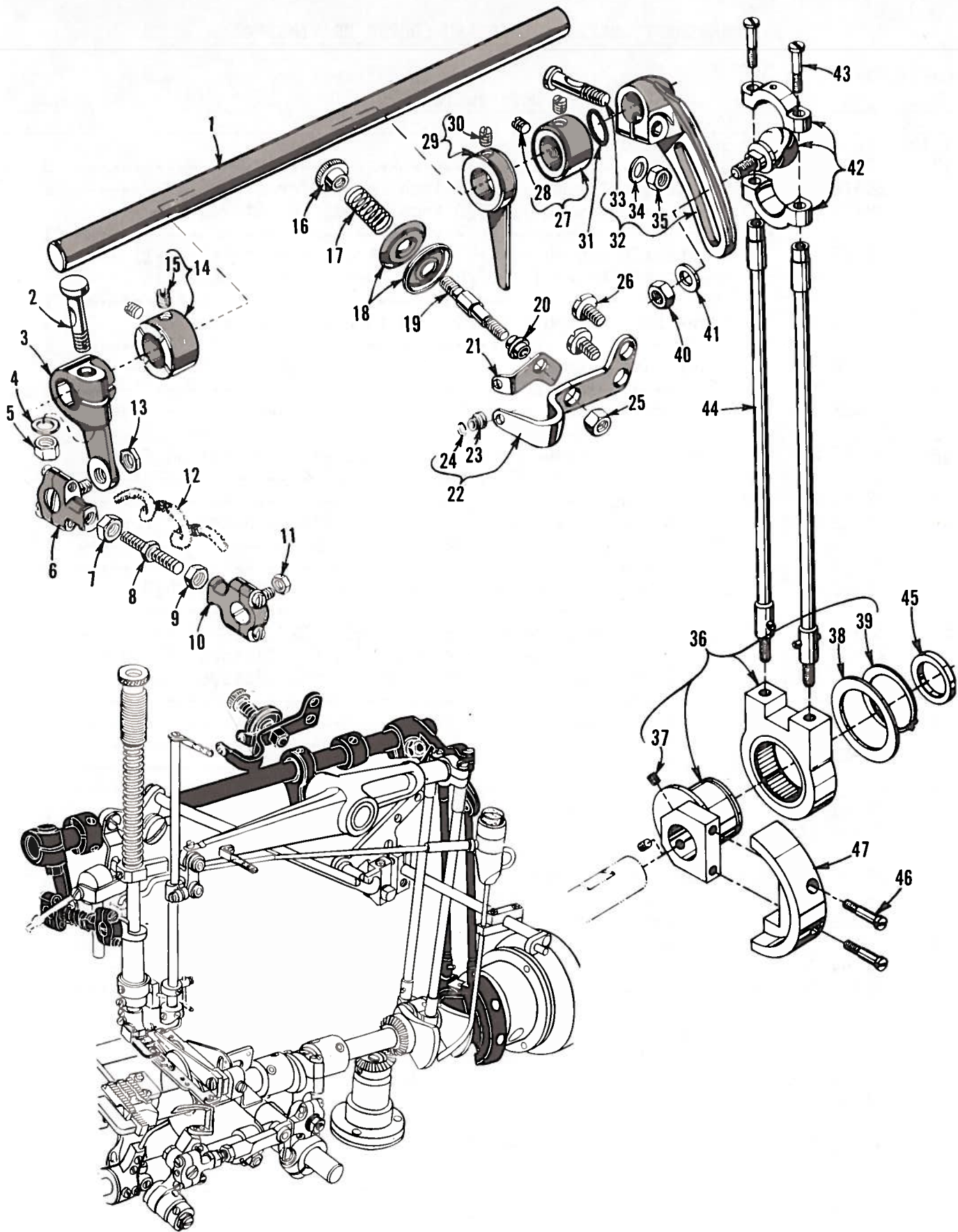
CRANKSHAFT, NEEDLE LEVER AND LOOPER DRIVING PARTS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	22768	Screw -----	1
2	56458	Needle Lever Thread Eyelet, for two needle machines -----	1
3	56358 A	Needle Lever Thread Eyelet, for one needle machines -----	1
4	56958	Needle Lever Thread Eyelet, for three needle machines ---	1
5	52842 A	Needle Bar Finger Thread Eyelet Support, for Class 528 --	1
6	73 A	Screw, for Class 528 -----	1
7	22743	Screw, for Class 528 -----	1
8	41076 D	Thread Eyelet, for Class 528 -----	1
9		Needle Bar Head (See page 43) -----	1
10		Needle Bar (See page 43) -----	1
11	27-435 B1k.	Eyelet Lock Washer -----	1
12	22768	Screw -----	1
13	56458 A	Needle Bar Thread Eyelet, for two needle machines -----	1
14	56358	Needle Bar Thread Eyelet, for one needle machines -----	1
15	56958 A	Needle Bar Thread Eyelet, for three needle machines -----	1
16	22586 R	Screw -----	1
17	51250 F	Gasket -----	1
18	51250 D	Washer -----	1
19	660-212	Oil Seal Ring -----	2
20	56350 E	Needle Lever Thrust Collar -----	1
21	56350 F	Compression Cup -----	2
22	660-614	Temper Load Ring -----	1
23	29348 AF	Needle Lever Assembly -----	1
24	52336 A	Link Pin -----	2
25	WO-3	Columbia Yarn (6 strands) -----	-
26	660-215	Retaining Ring -----	4
27	22564	Screw -----	1
28	51254 K	Needle Bar Connection -----	1
29	22562 A	Screw -----	1
30	56354 D	Needle Bar Link -----	1
31	77	Screw -----	1
32	56315 A	Needle Lever -----	1
33	56350 G	Needle Lever Bushing -----	1
34	56350 D	Needle Lever Stud -----	1
35	29066 R	Needle Lever Connecting Rod and Upper Bearing Assembly --	1
36	22559 G	Screw -----	2
37	51216 N	Washer -----	1
38	51216 P	Nut -----	1
39	51216 G	Needle Lever Connecting Rod -----	2
40	51247	Counterweight -----	1
41	22894 J	Screw -----	2
42	51147	Thrust Collar -----	1
43	95	Screw -----	2
44	660-202	Oil Seal Ring -----	1
45	52921 B	Pulley, for Class 528 -----	1
-	51221 C	Pulley, for all Styles except 527-21 and Class 528 -----	1
-	51321 H	Pulley, for Style 527-21 -----	1
46	22894 G	Screw -----	2
47 to 80		See following page	



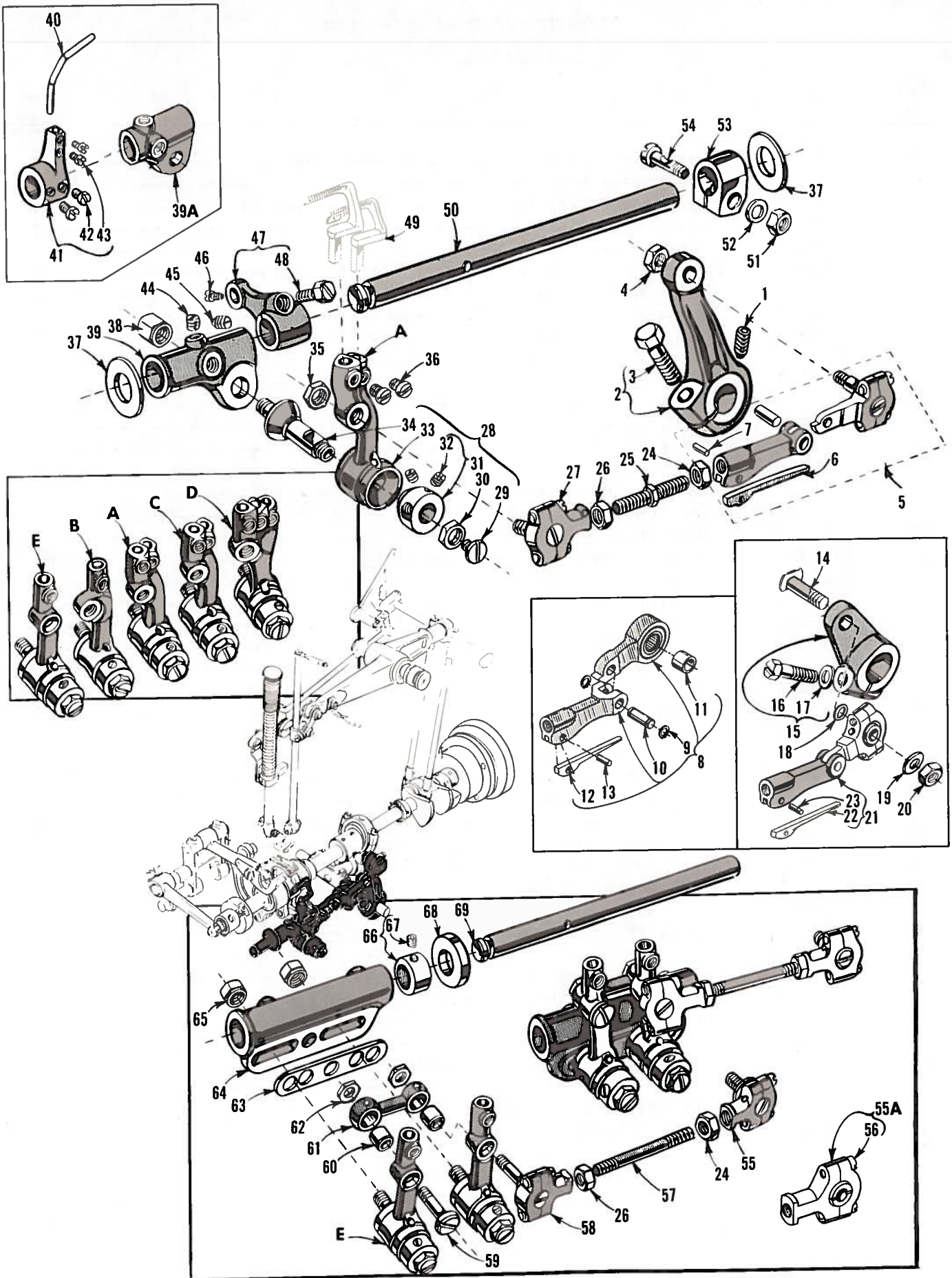
CRANKSHAFT, NEEDLE LEVER AND LOOPER DRIVING PARTS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1 thru 46		See preceding page	
47	22569 B	Screw -----	3
48	29476 HL	Crankshaft Assembly, .910 inch throw, for Class 528 -----	1
-	29476 FF	Crankshaft Assembly, .910 inch throw, for Styles 513-11, 513-12 -----	1
-	29476 GZ	Crankshaft Assembly, .990 inch throw, for Style 513-13 ----	1
-	29476 HA	Crankshaft Assembly, .770 inch throw, for Classes 514, 517 -----	1
-	29476 JR	Crankshaft Assembly, .990 inch throw, for Classes 515, 519 -----	1
-	29476 JP	Crankshaft Assembly, .910 inch throw, for Class 527 -----	1
49	51216 M	Needle Bearing Rollers -----	28
50	51493 BP	Pump Driving Gear -----	1
51	22560 B	Screw -----	2
52	52943 L	Looper Drive Lever Crank and Crankshaft Connection, for Classes 515, 519, 527, 528 -----	1
53	22894 X	Screw -----	4
54	56343 D	Looper Drive Lever Crank and Main Shaft Connection, for Classes 515, 519, 527, 528 -----	1
55	22894 X	Screw -----	4
56	52942 A	Looper Drive Lever Rocker Shaft, for Classes 515, 519, 527, 528 -----	1
57	52951 C	Spacing Washer, for Classes 515, 519, 527, 528 -----	1
58	29476 LE	Looper Driving Lever Crank Assembly, for Classes 527, 528 -	1
-	29476 LW	Looper Driving Lever Crank Assembly, for Classes 515, 519 -	1
59	22559 A	Screw, lower -----	2
60	51243 C	Ball Stud Guide -----	1
61	22729	Screw -----	1
62	22587	Screw, upper -----	2
63	22729	Screw, for Classes 513, 514, 517 -----	1
64	51243 C	Ball Stud Guide Fork, for Classes 513, 514, 517 -----	1
65	29105 AA	Looper Drive Lever Eccentric Assembly, for Classes 514, 517 -----	1
-	29105 Z	Looper Drive Lever Eccentric Assembly, for Class 513 -----	1
66	22559 A	Bearing Cap Screw, lower -----	2
67	22559 B	Bearing Cap Screw, upper -----	2
68	22894 C	Eccentric Set Screw -----	4
69	22894 D	Eccentric Spot Screw -----	1
70	22852 A	Clamp Screw, for Classes 513, 514, 517 -----	1
71	81	Spot Screw, for Classes 513, 514, 517 -----	1
72	51242 M	Washer, for Classes 513, 514, 517 -----	1
73	51242 Y	Looper Drive Lever Rocker, for Classes 513, 514, 517 -----	1
74	52841 J	Nut, for Classes 513, 514, 517 -----	1
75	51242 M	Washer, for Classes 513, 514, 517 -----	1
76	52841 G	Locking Stud, for Classes 513, 514, 517 -----	1
77	12982	Lock Nut, for Classes 513, 514, 517 -----	1
78	51242 P	Looper Drive Lever Shaft, for Classes 513, 514, 517 -----	1
79	22539 H	Plug Screw, for Classes 513, 514, 517 -----	1
80	51242 L	Thrust Washer, for Classes 513, 514, 517 -----	2



SPREADER DRIVING MECHANISM
FOR CLASS 528 ONLY

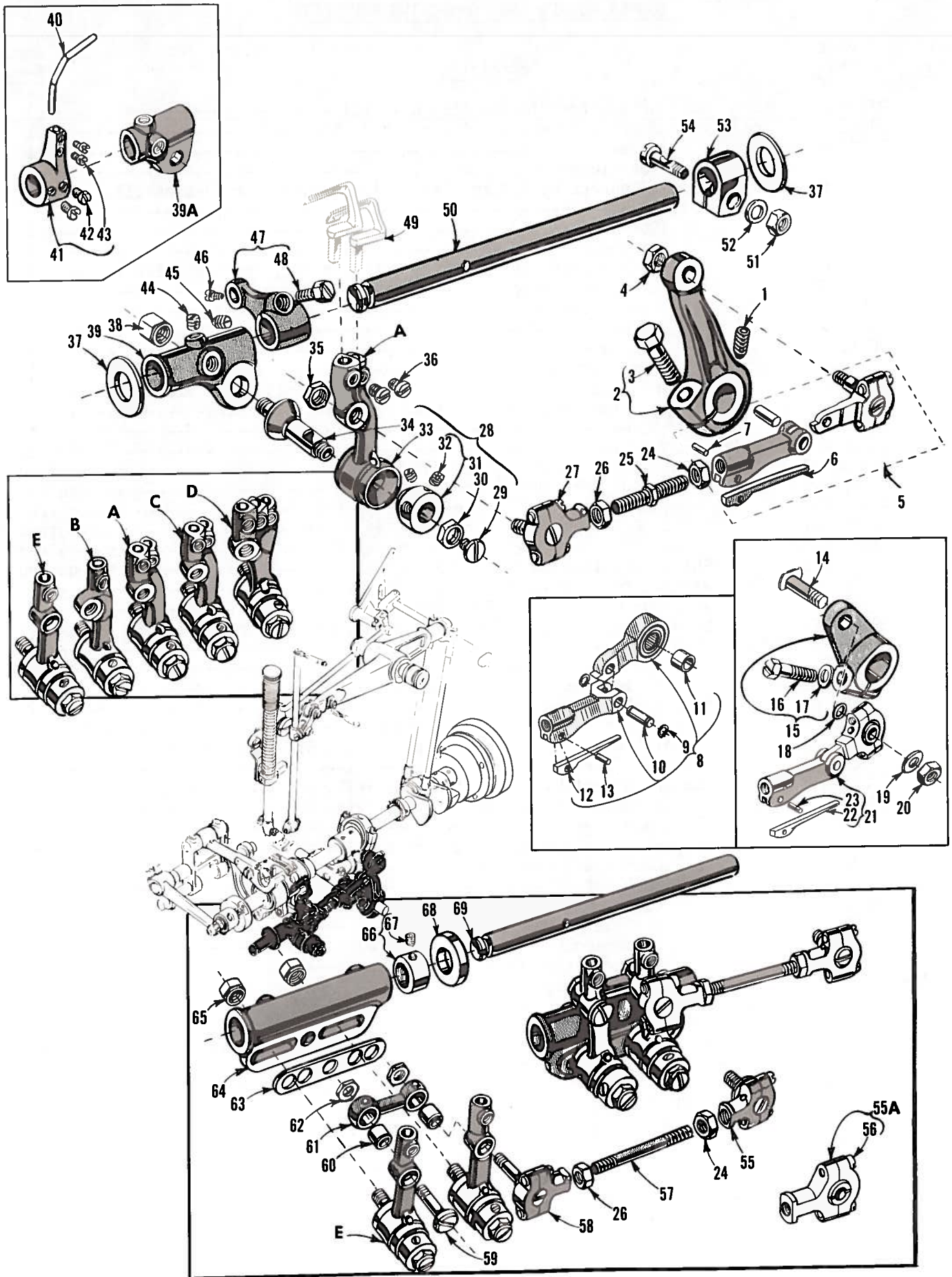
Ref. No.	Part No.	Description	Amt. Req.
1	52849	Spreader Rocker Shaft -----	1
2	55235 D	Screw -----	1
3	52849 B	Spreader Rocker Shaft Arm -----	1
4	6042 A	Washer -----	1
5	55235 E	Nut -----	1
6	52848 C	Spreader Connecting Rod Ball Joint, rear -----	1
7	269	Nut, left thread -----	1
8	51240 D	Spreader Connecting Rod -----	1
9	18	Nut, right thread -----	1
10	52848 B	Spreader Connecting Rod Ball Joint, front -----	1
11	12934 A	Nut -----	1
12	CL21	Oil Wick -----	1
13	15037 A	Nut -----	1
14	51147	Rocker Shaft Collar -----	1
15	95	Screw -----	2
16	51292 C	Tension Nut -----	1
17	51292 F-2	Tension Spring -----	1
18	109	Tension Disc -----	2
19	51292	Tension Post -----	1
20	51292 A	Tension Post Ferrule -----	1
21	51292 D	Tension Thread Eyelet -----	1
22	52855 A	Spreader Thread Pull-off Eyelet -----	1
23	668-25	Eyelet -----	1
24	668-28	Eyelet Locking Ring -----	1
25	43266	Nut -----	1
26	22872	Screw -----	2
27	52849 C	Spreader Rocker Shaft Oil Seal Collar -----	1
28	95	Screw -----	2
29	52855 G	Spreader Thread Pull-off Arm -----	1
30	95	Screw -----	1
31	660-202	Oil Ring -----	1
32	52952 C	Spreader Thread Rock Shaft Lever -----	1
33	55235 D	Screw -----	1
34	6042 A	Washer -----	1
35	55235 E	Nut -----	1
36	29126 CR	Spreader Drive Eccentric Assembly -----	1
37	95	Screw -----	2
38	52951 B	Retaining Washer -----	1
39	660-246	Tru-Arc Ring -----	1
40	18	Nut -----	1
41	HA20 A	Washer -----	1
42	52952 B	Spreader Connecting Rod Ball Joint, upper -----	1
43	22559 G	Screw -----	2
44	52916	Spreader Driving Eccentric Connecting Rod -----	2
45	52951 C	Spacing Washer -----	1
46	22587 H	Screw -----	2
47	52947 A	Counterweight -----	1



LOOPER ROCKER AND CONNECTING ROD PARTS

Ref. No.	Part No.	Description	Amt. Req.
1	22894 H	Spot Screw, for Classes 513, 514, 517 -----	1
2	51242 W	Looper Drive Lever, for Classes 513, 514, 517 -----	1
3	22811 B	Screw -----	1
4	12538	Nut, for Classes 513, 514, 517 -----	1
5	51241 K	Looper Connecting Rod and Ball Joint, right, for Classes 513, 514 -----	1
6	56341 G	Spring -----	1
7	50-458 Blk.	Spring Pin -----	1
8	56341 M	Looper Connecting Rod and Ball Joint, right, for Class 528 -----	1
9	660-310	Ring, retaining -----	2
10	56341 E	Pin, hinge -----	1
11	56341 F	Ferrule -----	1
12	56341 G	Spring -----	1
13	50-458 Blk.	Pin, spring -----	1
14	52942 R	Looper Drive Lever Stud, for Classes 515, 519, 527, 528 -----	1
15	52942 P	Looper Drive Lever, for Classes 515, 519, 527, 528 -----	1
16	22882 A	Screw -----	1
17	51242 M	Washer -----	1
18	41355 U-4	Shim, .004 inch thick, for No. 52942 P ----- as required	
-	41355 U-5	Shim, .005 inch thick, for No. 52942 P ----- as required	
-	41355 U-6	Shim, .006 inch thick, for No. 52942 P ----- as required	
-	41355 U-7	Shim, .007 inch thick, for No. 52942 P ----- as required	
-	41355 U-8	Shim, .008 inch thick, for No. 52942 P ----- as required	
-	41355 U-9	Shim, .009 inch thick, for No. 52942 P ----- as required	
19	20	Washer, for Classes 515, 519, 527, 528 -----	1
20	18	Nut, for Classes 515, 519, 527, 528 -----	1
21	29480 LY	Looper Connecting Rod and Ball Joint, right, for Classes 515, 519 -----	1
22	56341 G	Spring -----	1
23	50-458 Blk.	Spring Pin -----	1
24	18	Nut, right thread -----	1
25	51240 D	Looper Connecting Rod, for Class 513 -----	1
-	57840	Looper Connecting Rod, for Classes 514, 515, 519, 528 -----	1
26	269	Nut, left thread -----	1
27	55241 N	Looper Connecting Rod Ball Joint, left, for Classes 513, 514 -----	1
-	52841 A	Looper Connecting Rod Ball Joint, left, for Classes 515, 519, 527, 528 -----	1
28		Looper Rocker Assembly (See Chart Below) -----	-
29	22829	Lock Nut Screw -----	1
30	258 A	Lock Nut -----	1
31	15465 F	Looper Rocker Cone -----	1
32	88	Set Screw -----	2
33		Looper Rocker (See Chart Below) -----	-
34	51745	Looper Rocker Cone Stud -----	1
35 thru 69		See following page	

	Ref. 28 Assembly	Ref. 33 Assembly	Identification Mark	Machine Classes	Amt. Req.
A	29192 A	51413	"C"	514	1
B	29192	51213	"B"	513	1
-	29192 T	52813	"P"	527, 528	1
C	29192 D	51513	"D"	515	1
D	29192 B	51913	"F"	519	1
E	29192 C	51713	"E"	517	2

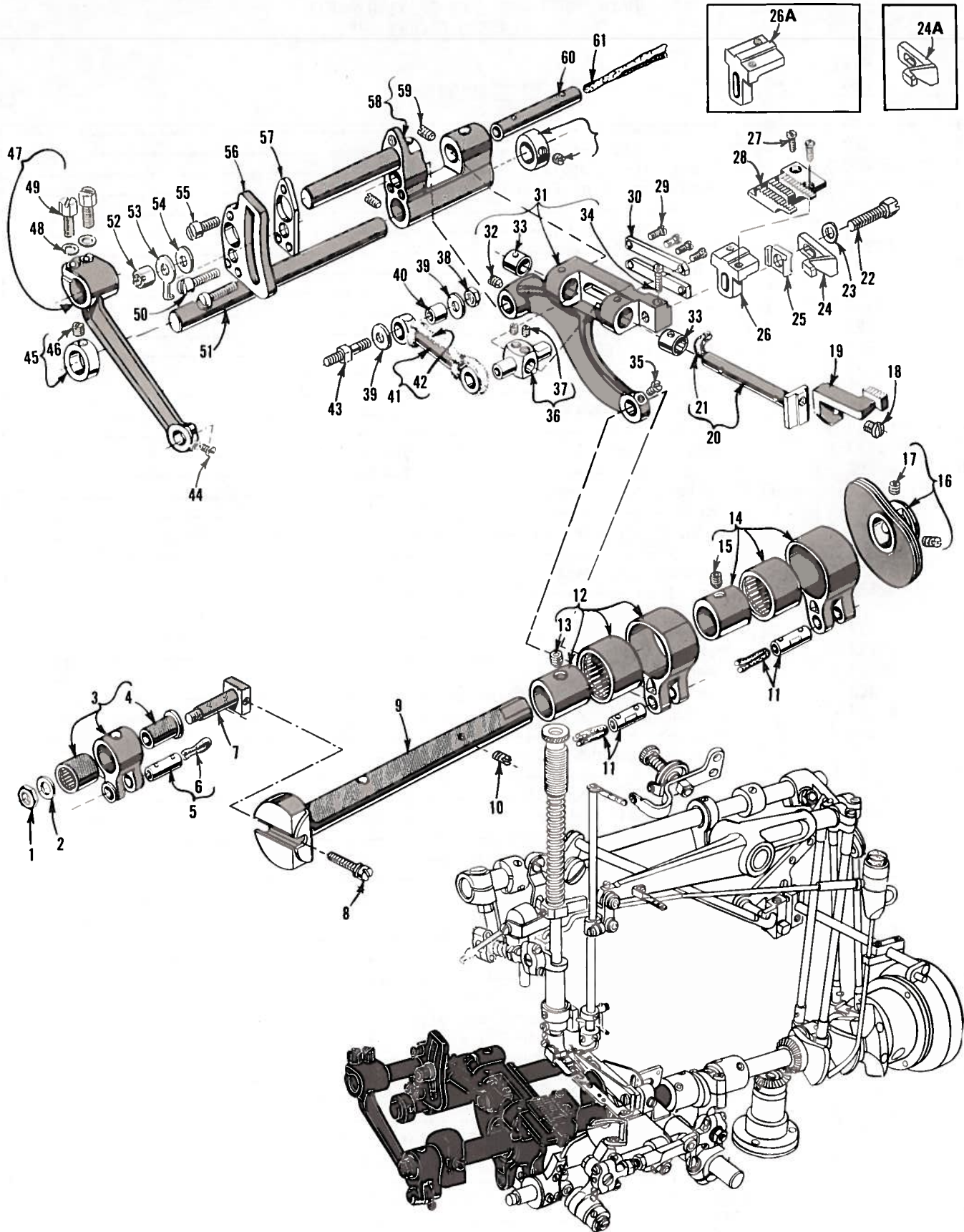


LOOPER ROCKER AND CONNECTING ROD PARTS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1 thru 34		See preceding page	
35	18	Nut, for all Classes except 517 -----	1
36	73	Looper Set Screw -----1, 2,	3
37	51244 L	Thrust Washer -----	2
38	51246	Looper Rocker Stud Nut, for all Classes except 517 -----	1
39	51244	Looper Rocker Frame, for Classes 513, 514, 515, 519 -----	1
39A	52444 B	Looper Rocker Frame, for Classes 527, 528 -----	1
40	52825 C	Looper Needle Guard, for Classes 527, 528 -----	1
41	52825 D	Looper Needle Guard Holder, for Classes 527, 528 -----	1
42	33174 B	Screw -----	2
43	22563	Screw -----	2
44	98	Set Screw, for all Classes except 517 -----	1
45	96	Spot Screw, for all Classes except 517 -----	1
46	22768	Screw -----	1
47	51244 B	Looper Rocker Shaft Arm -----	1
48	22519 H	Screw -----	1
49		Looper (See Pages 45, 47, 49) -----	-
50	51144	Looper Rocker Rock Shaft, for all Class except 517 -----	1
51	18	Nut -----	1
52	20	Washer -----	1
53	51244 N	Looper Rocker Rock Shaft Collar, for all Classes except 517 -----	1
54	55244 G	Locking Stud, for all Classes except 517 -----	1
55	51741 C	Looper Connecting Rod Ball Joint, right, for Class 517 -----	1
55A	52941 D	Looper Connecting Rod Ball Joint, right, for Class 527 -----	1
56	97 A	Screw -----	2
57	41047	Looper Connecting Rod, for Class 517 -----	1
-	39141	Looper Connecting Rod, for Class 527 -----	1
58	55641	Looper Connecting Rod Ball Joint, left, for Class 517 -----	1
59	22835	Looper Rocker Link Stud, for Class 517 -----	1
60	51771	Looper Rocker Link Ferrule, for Class 517 -----	2
61	51770-64	Looper Rocker Link, for Class 517 -----	1
62	14077	Nut, for Class 517 -----	2
63	51772-64	Looper Rocker Spacing Plate, for Class 517 -----	1
64	51744 A	Looper Rocker Frame, for Class 517 -----	1
65	1280	Looper Rocker Stud Nut, for Class 517 -----	2
66	51773	Looper Rocker Frame Spacing Collar, for Class 517 -----	1
67	88 B	Screw -----	1
68	54244 L	Thrust Washer, for Class 517 -----	1
69	51244 A	Looper Rocker Rock Shaft, for Class 517 -----	1

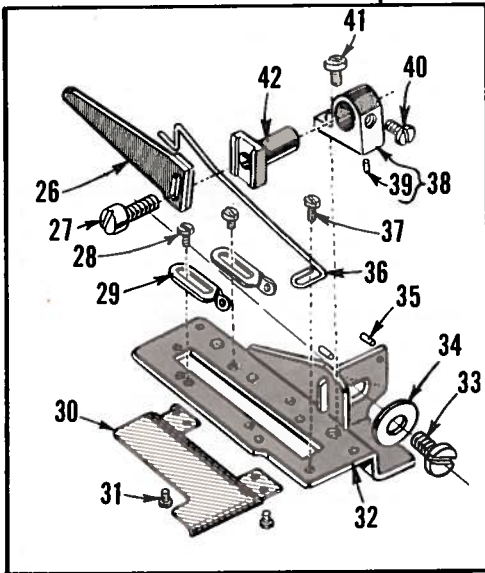
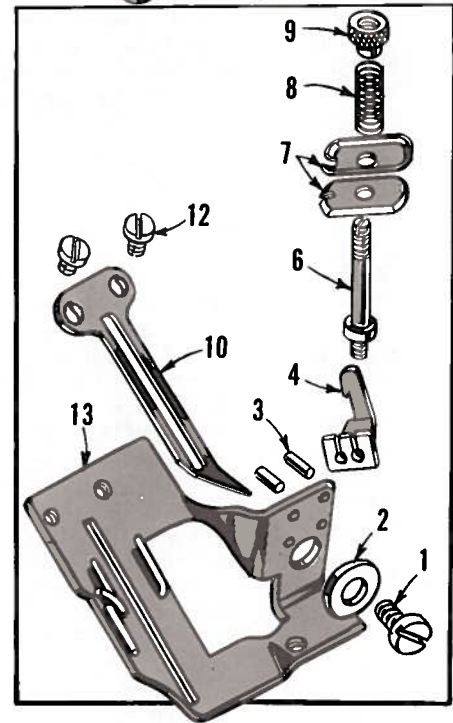
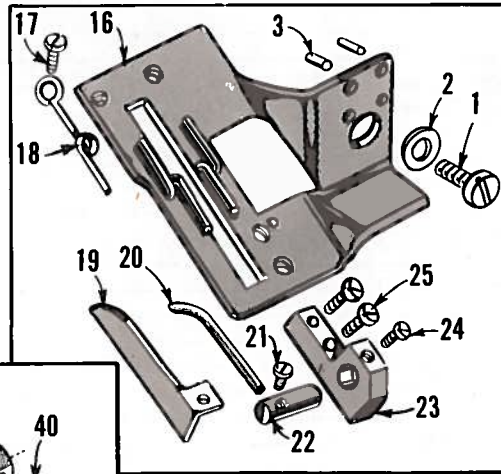
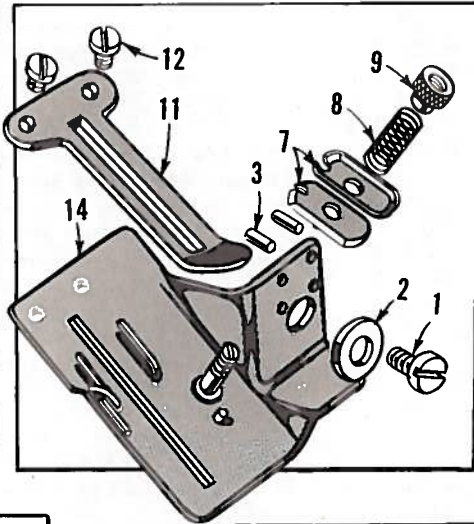
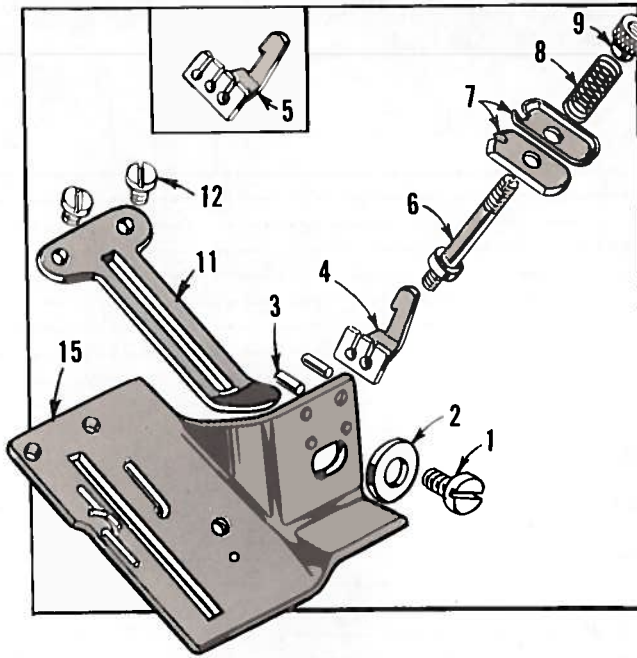
MAIN SHAFT AND FEED DRIVING PARTS
FOR ALL CLASSES EXCEPT 528

Ref. No.	Part No.	Description	Amt. Req.
1	269	Nut, left thread -----	1
2	20	Washer -----	1
3	51236 E	Feed Crank Link, complete -----	1
4	51236 F	Feed Crank Link Ferrule -----	1
5	51054	Link Pin -----	1
6	666-149	Oil Wick -----	1
7	51236 G	Feed Crank Stud -----	1
8	82	Stitch Regulating Screw -----	1
9	51222	Main Shaft, for Classes 513, 514 -----	1
-	51222 H	Main Shaft, for Classes 515, 519 -----	1
-	51722	Main Shaft, for Class 517 -----	1
-	52922 C	Main Shaft, for Class 527 -----	1
10	77	Screw -----	1
11	51235 A	Feed Rocker Arm -----	1
12	22519 C	Screw -----	2
13	51235 G	Washer -----	2
14	51235	Feed Rocker, for all Classes except 519 -----	1
15	98	Screw -----	2
16	51135	Feed Rocker, for Class 519 -----	1
17	98	Screw -----	2
18	22585 B	Needle Guard Screw -----	1
19	51225 W	Washer -----	1
20		Needle Guard (See Page 43) -----	1
21	22528	Feed Dog Screw -----	1
22		Feed Dog (See Pages 45, 47, 49) -----	1
23	77	Screw -----	1
24	51134	Feed Bar -----	1
25	56334 L	Feed Dog Holder -----	1
26	22863	Feed Dog Holder Adjusting Screw -----	1
27	51134 J	Feed Dog Holder Washer -----	1
28	258 A	Nut -----	1
29	538	Feed Dog Height Adjusting Screw -----	1
30	22560 B	Screw -----	1
31	22834	Needle Guard Adjusting Screw -----	1
32	482	Feed Rocker Shaft Collar -----	2
33	98	Screw -----	1
34	51134 C	Feed Bar Shaft -----	1
35	51134 R	Lubricating Felt Guard -----	1
36	51134 P	Lubricating Felt -----	1
37	8	Feed Rocker Shaft -----	1
38	51423 B	Looper Thread Take-up, for Class 514 -----	1
39	96	Spot Screw -----	1
40	22580 D	Set Screw -----	1
41	51423 C	Looper Thread Take-up, for Class 515 -----	1
42	51723 A	Looper Thread Take-up, for Class 517 -----	1
43	51523 C	Looper Thread Take-up, for Class 513, 519 -----	1
44	52923 D	Looper Thread Take-up, for Class 527 -----	1
45	22580 D	Screw, set -----	2
46	22801	Screw, for looper thread take-up, for No. 52923 D -----	1
47	51236 A	Link Pin -----	2
48	29476 DV	Feed Lift Eccentric Assembly, for Classes 514, 517, 527 -----	1
-	29476 DR	Feed Lift Eccentric Assembly, for Styles 513-11, 513-12 and Classes 515, 519 -----	1
-	29476 DS	Feed Lift Eccentric Assembly, for Style 513-13 -----	1
49	22894 D	Screw -----	1
50	29476 DV	Looper Avoid Eccentric Assembly, for Classes 514, 517, 527 -----	1
-	29476 DX	Looper Avoid Eccentric Assembly, for Styles 513-11, 513-12 -----	1
-	29476 DR	Looper Avoid Eccentric Assembly, for Style 513-13 and Classes 515, 519 --	1
51	22894 D	Screw -----	1



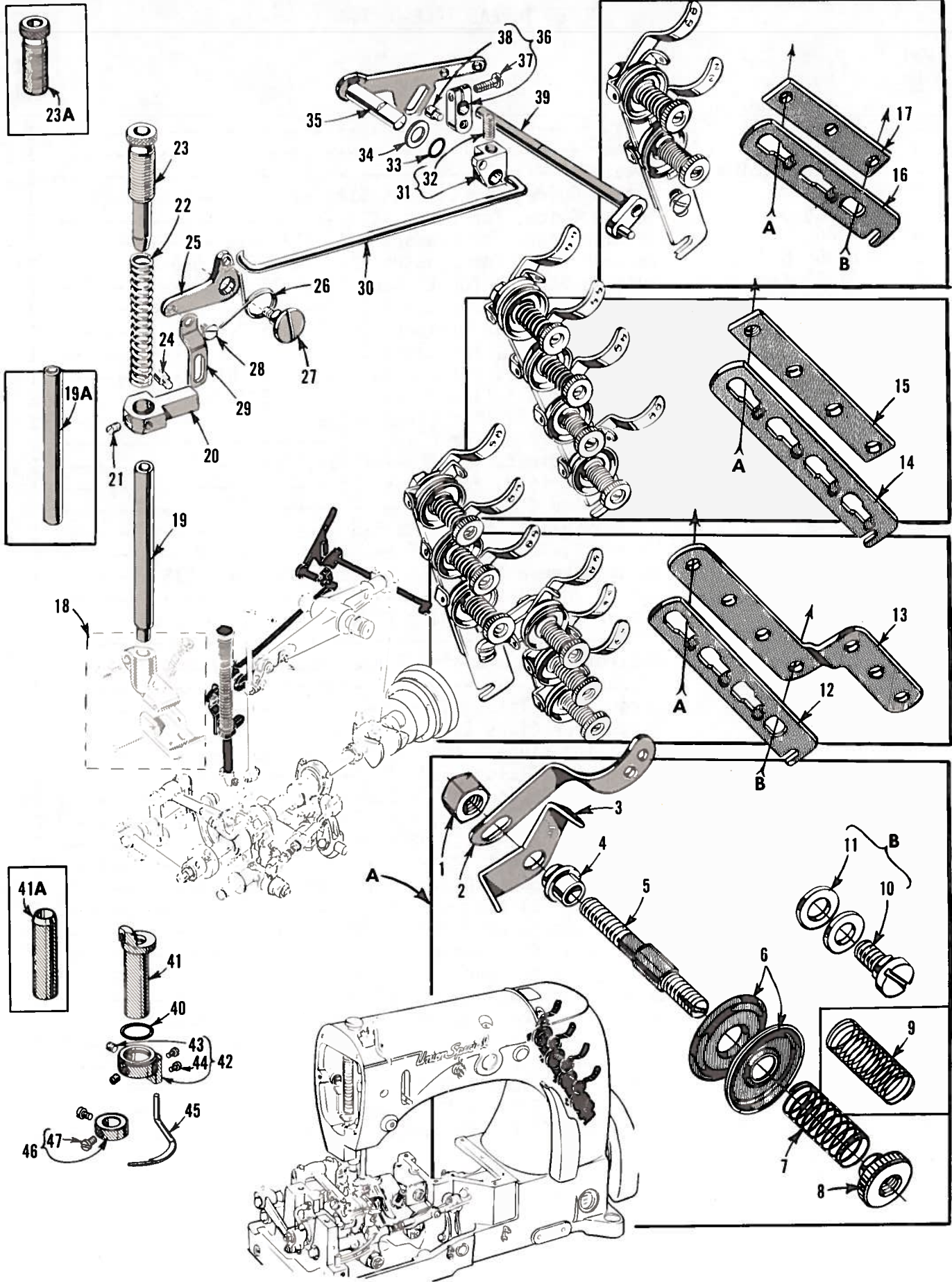
MAIN SHAFT, TAKE-UP AND DIFFERENTIAL FEED MECHANISM
FOR CLASS 528 ONLY

Ref. No.	Part No.	Description	Amt. Req.
1	269	Nut, left thread -----	1
2	20	Washer -----	1
3	51236 E	Feed Crank Link Assembly -----	1
4	51236 F	Feed Crank Link Ferrule -----	1
5	51054	Feed Crank Link Pin -----	1
6	666-149	Oil Wick -----	1
7	51236 G	Feed Crank Stud -----	1
8	82	Stitch Regulating Screw -----	1
9	52822 A	Main Shaft -----	1
10	22801	Screw, for take-up -----	1
11	51236 A	Link Pin -----	2
12	29476 DX	Feed Lift Eccentric Assembly -----	1
13	22894 D	Screw -----	1
14	29476 DV	Looper Avoid Eccentric Assembly -----	1
15	22894 D	Screw -----	1
16	52923 D	Take-up -----	1
17	22580 D	Screw -----	2
18	90	Screw -----	1
19		Differential Feed Dog (See Pages 45, 47, 49) -----	1
20	52834 H	Differential Feed Bar -----	1
21	CL21	Oil Wick -----	1
22	22519 J	Screw -----	1
23	51235 G	Washer -----	1
24	52825 B	Rear Needle Guard, for Styles 528-22, 528-31, 528-32 -----	1
24A	52825 F	Rear Needle Guard, for Style 528-21 -----	1
25	52925 D	Needle Guard Holder -----	1
26	52853	Feed Dog Holder, for all Styles except 528-32 -----	1
26A	52853 A	Feed Dog Holder, for Style 528-32 -----	1
27	22593	Screw -----	2
28		Main Feed Dog (See Pages 45, 47, 49) -----	1
29	22593	Screw -----	4
30	39237 D	Differential Feed Bar Guide Plate -----	2
31	52834	Main Feed Bar -----	1
32	22560 B	Screw -----	1
33	39237 G	Bushing -----	2
34	22747	Feed Dog Height Adjusting Screw -----	1
35	77	Screw -----	1
36	39237	Differential Feed Bar Guide -----	1
37	22565 C	Screw -----	2
38	907	Nut -----	1
39	51225 W	Differential Feed Bar Regulating Stud Washer -----	2
40	39236 V	Differential Feed Drive Link Bushing -----	1
41	52835 T	Differential Feed Bar Driving Link -----	1
42	CL21	Oil Wick -----	1
43	39236 B	Differential Feed Regulating Stud -----	1
44	77	Screw -----	1
45	482	Collar -----	2
46	98	Screw -----	2
47	52836 C	Feed Rocker Arm -----	1
48	51235 G	Washer -----	2
49	22519 C	Screw -----	2
50	75	Screw -----	2
51	8	Feed Rocker Shaft -----	1
52	52834 N	Differential Feed Regulating Stud Nut -----	1
53	39236 C	Regulating Stud Stop -----	1
54	51225 W	Washer -----	1
55	22516	Screw -----	1
56	52836 G	Feed Rocker Segment Plate -----	1
57	52836 N	Feed Rocker Segment Slot Plate Shim -----	1
58	52836	Feed Rocker -----	1
59	89	Screw -----	2
60	51134 C	Feed Bar Shaft -----	1
61		Wool Yarn -----	1



LOOPER THREAD TAKE-UP PARTS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	22528	Screw -----	1
2	21657 E	Washer -----	1
3	50-216 Blk.	Dowel Pin -----	2
4	51459 A	Thread Guide, for Classes 514, 517 -----	1
5	51959 J	Thread Guide, for Class 519 -----	1
6	51492	Tension Post, for Classes 514, 517, 519 -----	1
7	51959 B	Tension Disc, for Classes 513, 514, 517, 519 -----	2
8	51959 K	Tension Spring, for Classes 514, 517, 519 -----	1
-	51959 C	Tension Spring, for Class 513 -----	1
9	51959 D	Tension Nut, for Classes 513, 514, 517, 519 -----	1
10	51704	Cast-off Plate, for Class 517 -----	1
11	52804 A	Cast-off Plate, for Classes 513, 514, 519 -----	1
12	28	Screw, for all Classes except 515, 527, 528 -----	2
13	51757 B	Take-up Shield, for Class 517 -----	1
14	51557	Take-up Shield, for Class 513 -----	1
15	51457 A	Take-up Shield, for Classes 514, 519 -----	1
16	51257 P	Take-up Shield, for Class 515 -----	1
17	22768	Screw, for Class 515 -----	1
18	52958	Thread Eyelet, for Class 515 -----	1
19	51204 B	Cast-off, for Class 515 -----	1
20	51204	Looper Thread Retaining Finger, for Class 515 -----	1
21	22798 A	Screw, for Class 515 -----	1
22	51204 A	Looper Thread Retaining Finger Holder, for Class 515 -----	1
23	51204 C	Cast-off and Retaining Finger Support Bracket, for Class 515 -----	1
24	77	Screw, for Class 515 -----	1
25	J87 J	Screw, for Class 515 -----	2
26	52904 B	Retaining Finger, for Classes 527, 528 -----	1
27	22516	Screw, for Classes 527, 528 -----	1
28	73 A	Screw, for Classes 527, 528 -----	2
29	52958 D	Looper Thread Eyelet, for Classes 527, 528 -----	2
30	52994 B	Oil Guard, for Class 527 -----	1
31	22798	Screw, for Class 527 -----	2
32	52957 C	Cast-off Support Plate, for Classes 527, 528 -----	1
33	22528	Screw, for Classes 527, 528 -----	1
34	21657 E	Washer, for Classes 527, 528 -----	1
35	50-216 Blk.	Dowel Pin, for Classes 527, 528 -----	2
36	52904 G	Cast-off Wire, for Classes 527, 528 -----	1
37	73 A	Screw, for Classes 527, 528 -----	1
38	52904 E	Retaining Finger Support Bracket, for Classes 527, 528 -----	1
39	50-216 Blk.	Dowel Pin -----	1
40	87 U	Screw, for Classes 527, 528 -----	1
41	22768	Screw, for Classes 527, 528 -----	1
42	52804 E	Retaining Finger Support, for Classes 527, 528 -----	1



THREAD TENSION AND LIFTER LEVER PARTS

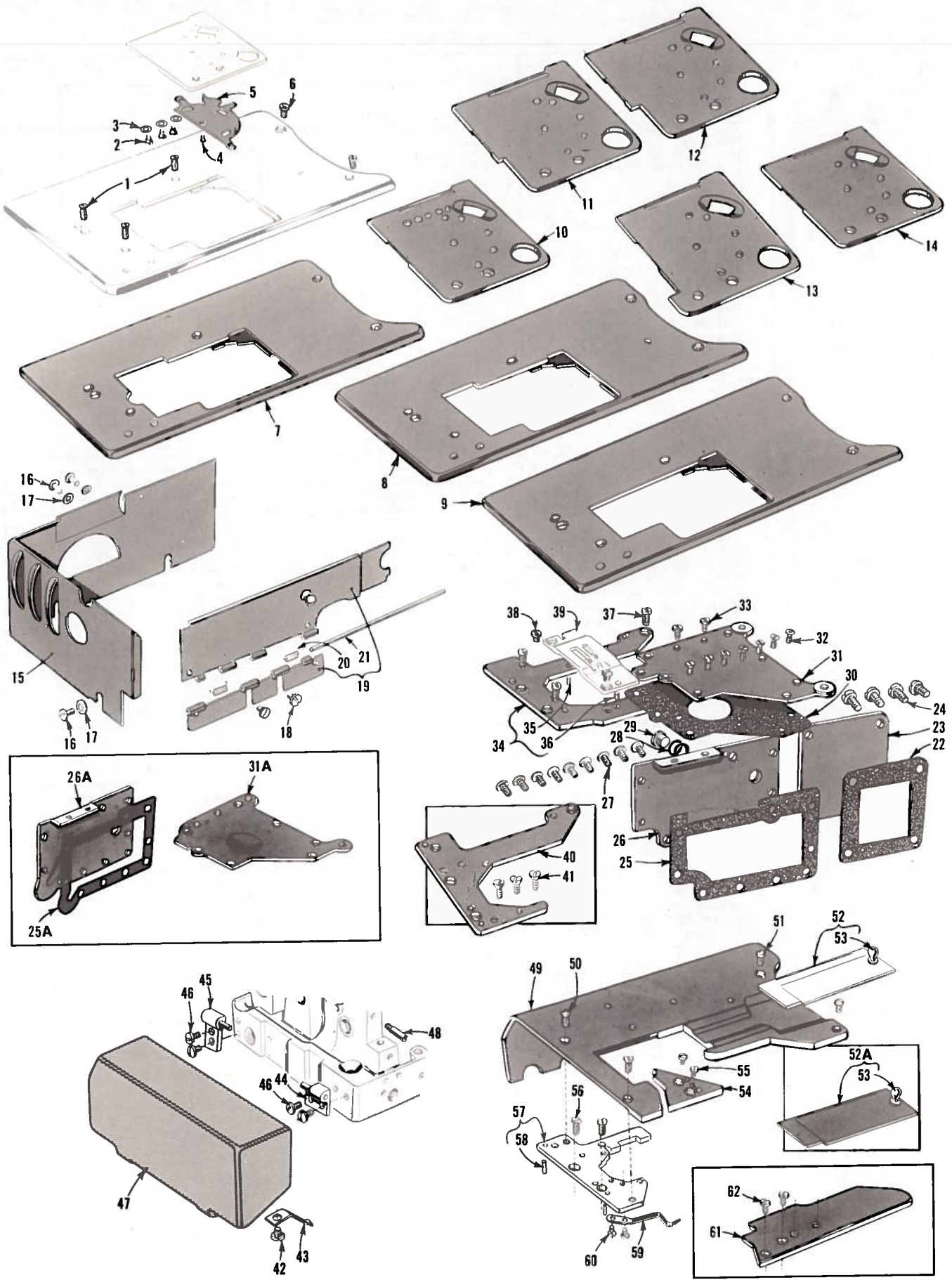
TENSION PARTS

Ref. No.	Part No.	Description	AMOUNT REQUIRED			
			Class 513	Class 527 Style 528-21,-22	Classes 514, 515, 517 Styles 528-31,-32	Class 519
1	43266	Nut	1	1	2	5
2	51491 C	Lead-in Guide	2	3	4	6
3	51292 D	Tension Thread Eyelet	2	3	4	6
4	51292 A	Ferrule	2	3	4	6
5	51292 G	Tension Post	2	3	4	6
6	109	Tension Disc	4	6	8	12
7		Needle Thread Tension Spring				
8	51292 C	Tension Nut	2	3	4	6
9		Looper Thread Tension Spring				
10	22598 C	Screw	1			1
11	80557	Washer	2			2
12	21657-4	Tension Disc Separator				1
13	51992 A	Tension Post Support				1
14	21657-4	Tension Disc Separator			1	
15	56382 X	Tension Post Support			1	
16	21657-3	Tension Disc Separator	1	1		
17	52892	Tension Post Support	1	1		

Ref. No.	Part No.	Description	Amt. Req.
18		Presser Foot (See Pages 45, 47, 49) -----	1
19	51257 K	Presser Bar, for all Classes except 519, 528 -----	1
-	53688	Presser Bar, for Class 528 -----	1
19A	51957 E	Presser Bar, for Class 519 -----	1
20	51257 M	Presser Bar Connection and Guide -----	1
21	531	Screw -----	1
22	51256 C	Presser Spring, for all Classes except 519 -----	1
-	53787	Presser Spring, for Class 519 -----	1
23	56356	Presser Spring Regulator, for all Classes except 528 -----	1
23A	52889 A	Presser Spring Regulator, for Class 528 -----	1
24	402	Screw -----	1
25	53783 L	Lifter Lever Bell Crank -----	1
26	52883 S	Lifter Lever Bell Crank Spring -----	1
27	22557 B	Screw -----	1
28	22758 C	Screw -----	1
29	53783 A	Lifter Lever Link -----	1
30	56383 AB	Presser Foot Lifter Lever Connecting Rod -----	1
31	53783 N	Lifter Lever, internal -----	1
32	22537	Screw -----	1
33	660-207	Oil Seal Ring -----	1
34	39552 C	Washer, for Classes 527, 528 -----	1
35	51283 H	Lifter Lever -----	1
36	21657 Y	Tension Release Lever Connection -----	1
37	22596	Screw -----	1
38	402	Screw -----	1
39	21657 W	Tension Release and Lifter Lever Shaft -----	1
40	660-202	Oil Ring, for Class 528 -----	1
41	52847	Spreader Holder Carrier and Lower Presser Bar Bushing, for Class 528 -----	1
41A	51257 AA	Lower Presser Bar Bushing, all Classes except 528 -----	1
42	52846 A	Spreader Holder, for Class 528 -----	1
43	88	Screw -----	1
44	77 A	Screw -----	2
45	52945 M	Spreader, for Class 528 -----	2
46	52888 B	Presser Bar Stop Collar, for Class 528 -----	1
47	22562	Screw -----	1

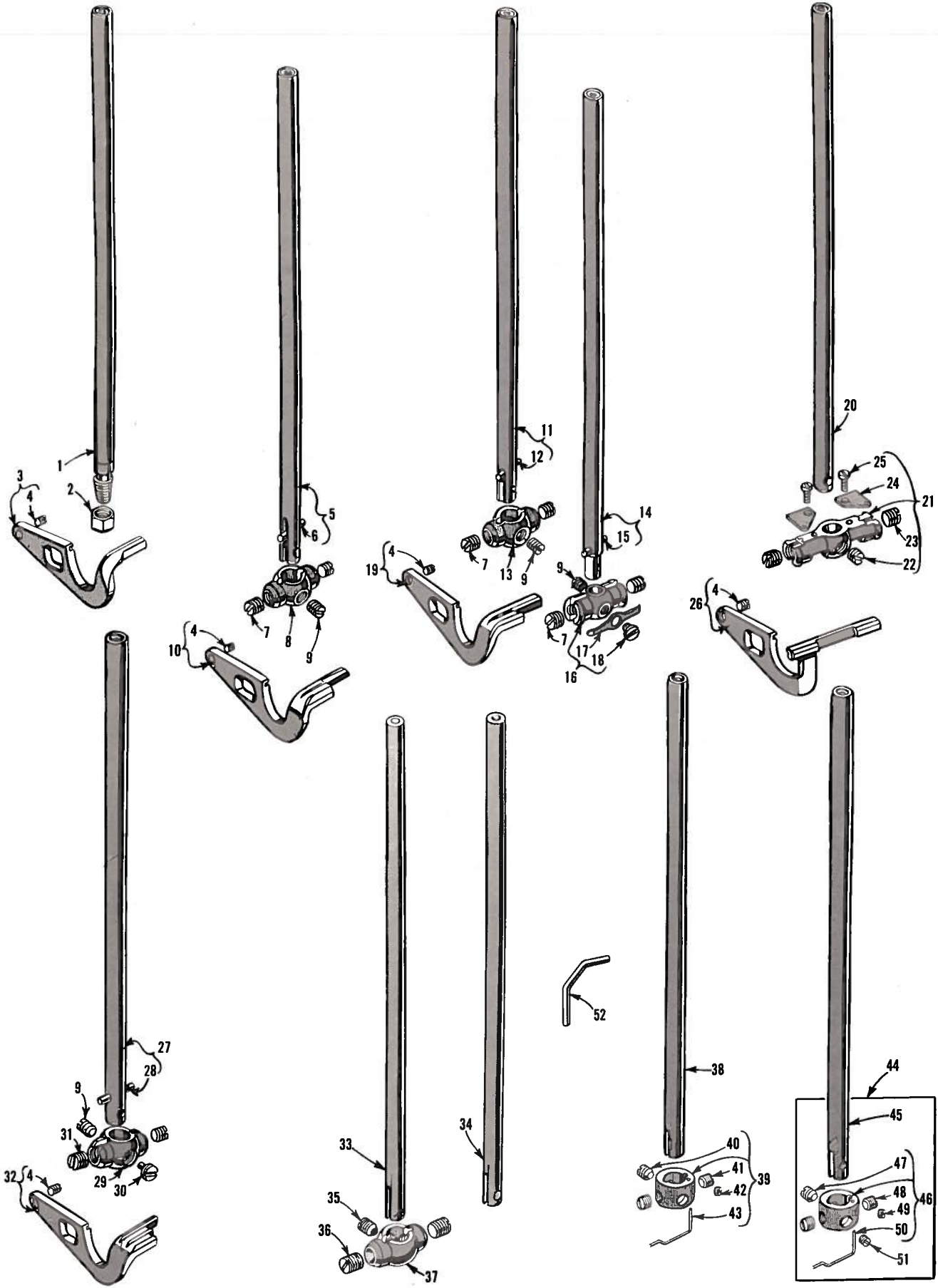
TENSION SPRING CHART

Ref. No.	Part No.	Description	Machine Styles	Amt. Req.
7	51292 F-5	Needle Thread Tension Spring	514-21, 514-22, 517-21, 527-23, 527-24	2
			528-31, 528-32	3
7	51292 F-8	Needle Thread Tension Spring	513-11, 513-12, 513-13	1
			515-21, 515-22, 527-21, 527-22, 528-21, 528-22	2
			519-31	3
9	51292 F-1	Looper Thread Tension Spring	527-23, 527-24, 528-21, 528-22, 528-31, 528-32	1
			514-21, 514-22, 517-21	2
9	51292 F-2	Looper Thread Tension Spring	513-11, 513-12, 513-13, 527-21, 527-22	1
			515-21, 515-22	2
			519-31	3



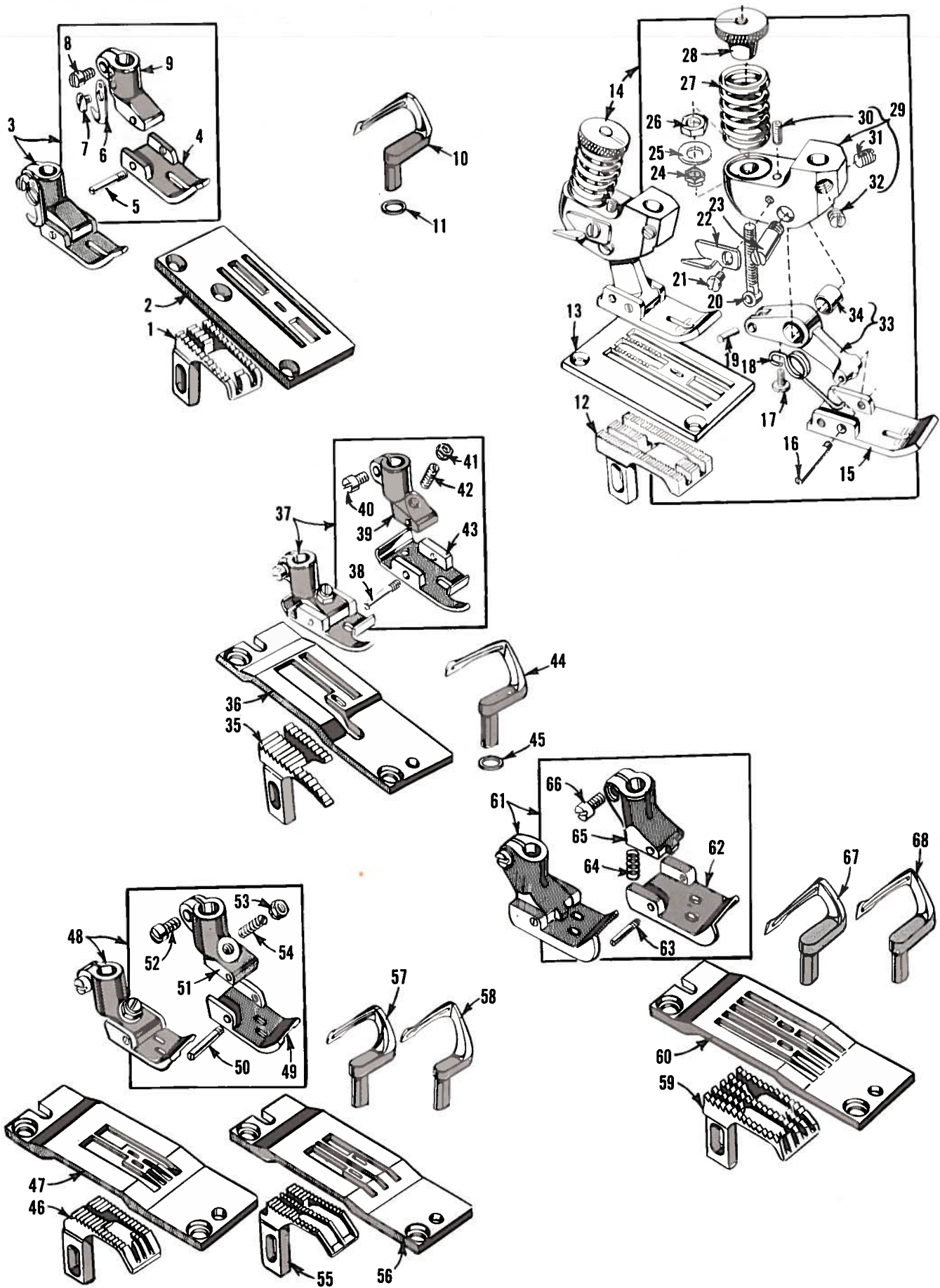
THROAT PLATE SUPPORTS, CLOTH PLATES AND MISCELLANEOUS COVERS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	80	Screw, for all Classes except 528 -----	3
2	22760 A	Screw, for all Classes except 528 -----	3
3	35772 H	Washer, all Classes except 528 -----	3
4	22845 B	Screw, for all Classes except 528 -----	1
5	51281 AC	Cloth Plate Cover Spring, all Classes except 528 -----	1
6	22839 C	Screw, for all Classes except 528 -----	2
7	51701 R	Cloth Plate, for Style 517-21 -----	1
8	53701	Cloth Plate, for Styles 513-13, 527-21, 527-22 and Classes 514, 515, 519 -----	1
9	51301 D	Cloth Plate, for Styles 513-11, 513-12, 527-23, 527-24 -----	1
10	51281 AB-207	Cloth Plate Cover, for Style 513-13 -----	1
11	51281 T-219	Cloth Plate Cover, for Styles 527-23, 527-24 -----	1
12	51281 T-222	Cloth Plate Cover, for Styles 513-11, 513-12 -----	1
13	51281 P-187	Cloth Plate Cover, for Style 517-21 -----	1
14	51281 P-207	Cloth Plate Cover, for Styles 527-21, 527-22; Classes 514, 515, 519 -----	1
15	51282 AH	Oil Shield, end and back, for all Classes except 528 -----	1
16	22848	Screw -----	3
17	20	Washer -----	3
18	25 S	Screw -----	2
19	51282 AJ	Hinged Oil Shield, front, for all Classes except 528 -----	1
20	51282 AK	Spring -----	2
21	52978 G	Hinge Pin -----	1
22	52882 U	Gasket -----	1
23	52882 AE	Crank Chamber Cover, lower for all Classes except 528 -----	1
-	52882 AF	Crank Chamber Cover, lower for Class 528 -----	1
24	22548	Screw -----	4
25	52882 M	Gasket, for Classes 513, 514, 517 -----	1
25A	52982 E	Gasket, for Classes 515, 519, 527, 528 -----	1
26	52882 L	Oil Reservoir Back Cover, for Classes 513, 514, 517 -----	1
26A	52982 D	Oil Reservoir Back Cover, for Classes 515, 519, 527, 528 -----	1
27	22848	Screw -----	9
28	41394 A	Gasket -----	2
29	22733 B	Plug Screw -----	1
30	51382 A	Gasket -----	1
31	53782 B	Oil Reservoir Top Cover, for all Classes except 528 -----	1
31A	52982 F	Oil Reservoir Top Cover, for Class 528 -----	1
32	22524	Screw -----	7
33	22585 A	Screw -----	2
34	51480	Throat Plate Support, for Styles 513-12, 527-21, 527-22 and Classes 514, 515, 517, 519 -----	1
35	51280 J	Dowel Pin, lower -----	2
36	51280 K	Dowel Pin, for throat plate -----	2
37	22839	Screw, for Style 513-13 and Classes 514, 515, 517, 519 -----	3
38	22570	Throat Plate Screw, fillister head -----	2
-	87	Throat Plate Screw, countersunk head -----	2
39		Throat Plate (See Pages 45, 47, 49) -----	1
40	51280 A	Throat Plate Support, for Styles 513-11, 513-12, 527-23, 527-24 -----	1
41	80	Screw, for Styles 513-11, 513-12 and Class 527 -----	3
42	22711	Screw, for Class 528 -----	1
43	52885 L	End Cover Spring, for Class 528 -----	1
44	57885	End Cover Hinge, front, for Class 528 -----	1
45	57885 B	End Cover Hinge, rear, for Class 528 -----	1
46	22848	Screw, for Class 528 -----	4
47	52985	End Cover, for Class 528 -----	1
48	22799 M	Screw, for Class 528 -----	1
49	52801 G	Cloth Plate, for Class 528 -----	1
50	80	Screw, for Class 528 -----	2
51	22839 C	Screw, for Class 528 -----	2
52	52802 D	Cloth Plate Slide Cover, for Styles 528-21, 528-22, 528-32 -----	1
52A	52802 C	Cloth Plate Slide Cover, for Styles 528-31 -----	1
53	52978 V	Knob -----	1
54	52864 R	Folder Support Platform, for Styles 528-21, 528-22, 528-32 -----	1
55	90	Screw, for Styles 528-21, 528-22, 528-32 -----	2
56	22839	Screw, for Class 528 -----	2
57	52880	Throat Plate Support, for Class 528 -----	1
58	51280 J	Dowel Pin -----	2
59	43281 K	Hinge Bracket Spring, for Class 528 -----	1
60	90	Screw, for Class 528 -----	2
61	52864 T	Folder Support Swinging Arm Platform, for Style 528-31 -----	1
62	93 A	Screw, for Style 528-31 -----	2



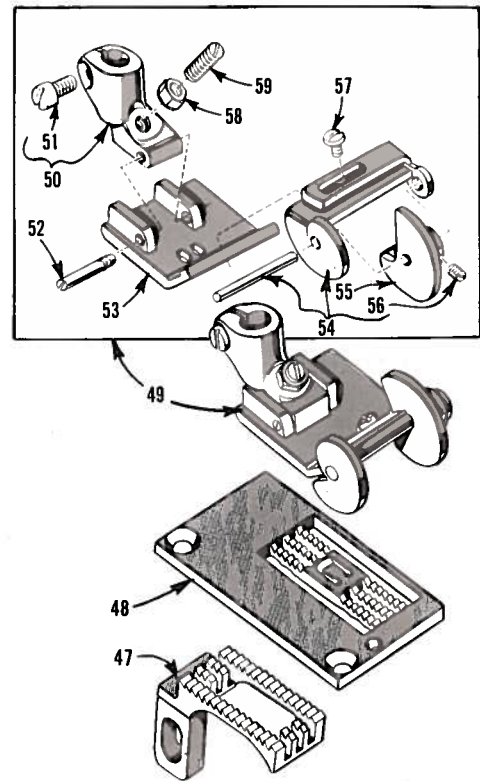
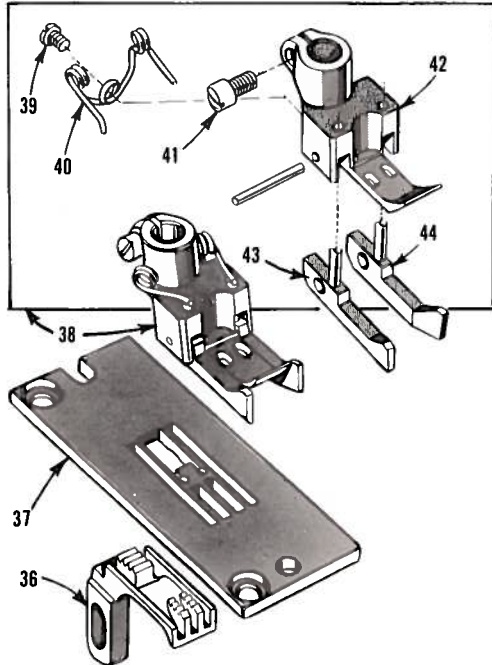
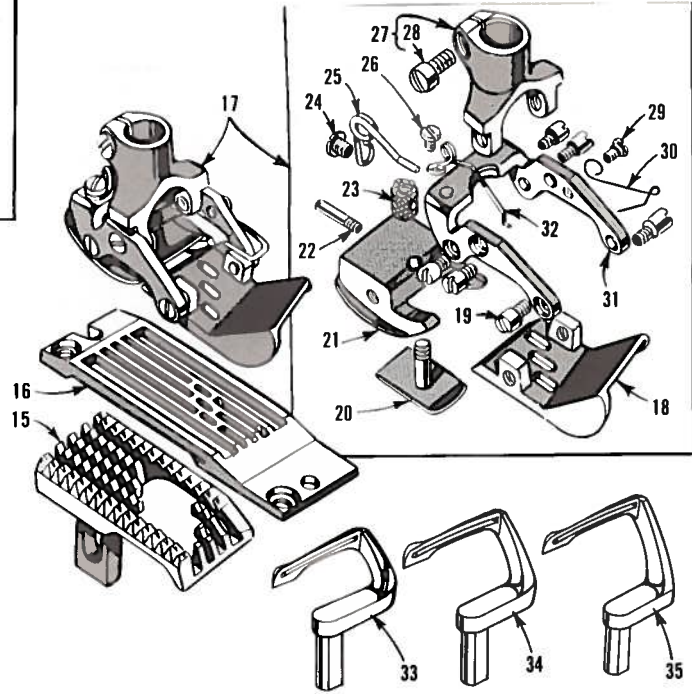
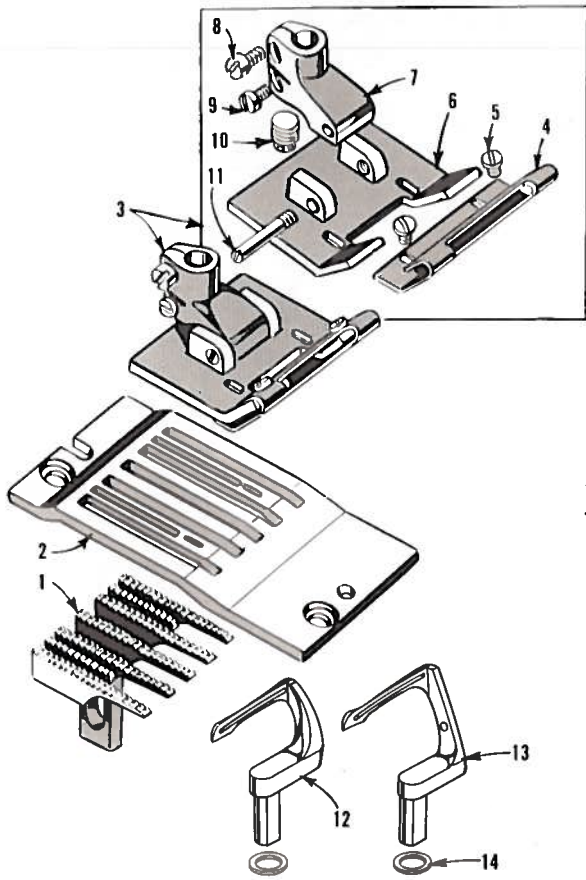
NEEDLE BARS, NEEDLE HOLDERS AND NEEDLE GUARDS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	51217 C	Needle Bar, marked "CU", for Class 513 -----	1
2	56	Needle Clamp Nut, for Class 513 -----	1
3	51225	Needle Guard, for Class 513 -----	1
4	22801	Screw -----	1
5	51417 C-12	Needle Bar, marked "CV-12", for Style 514-21 -----	1
-	51417 C-16	Needle Bar, marked "CV-16", for Style 514-22 -----	1
6	50 J-16	Stop Pin -----	1
7	98	Screw, for needles Class 514, 515 -----	2
8	51418-16	Needle Holder, marked "D-16", for Styles 514-21, 514-22 -----	1
9	89	Spot Screw, for Class 514, 515, 519 -----	1
10	51425	Needle Guard, for Class 514 -----	1
11	56517 B-16	Needle Bar, marked "ET", for Style 515-21 -----	1
12	50 J-16	Stop Pin -----	1
13	51418-16	Needle Holder, marked "D-16", for Style 515-21 -----	1
14	56517 B-18	Needle Bar, marked "EU", for Style 515-22 -----	1
15	50 J-16	Stop Pin -----	1
16	7018 E-5	Needle Holder, marked "G-5", for Style 515-22 -----	1
17	7040-6	Thread Guide -----	1
18	187 B	Screw -----	1
19	51525	Needle Guard, for Class 515 -----	1
20	51717	Needle Bar, marked "AU", for Class 517 -----	1
21	51718 A-64	Needle Holder, marked "AB-64", for Class 517 -----	1
22	22894 P	Spot Screw -----	1
23	98	Screw, for needle -----	2
24	51718 B-64	Needle Stop and Thread Eyelet -----	2
25	22513 B	Screw -----	2
26	51725	Needle Guard, for Class 517 -----	1
27	56917	Needle Bar, marked "EP-9", for Class 519 -----	1
28	50 J-16	Stop Pin -----	1
29	35818 N-9	Needle Holder, marked "C-9", for Class 519 -----	1
30	22752	Screw, for center needle, Class 519 -----	1
31	22580	Screw, for outside needles, Class 519 -----	2
32	51925	Needle Guard, for Class 519 -----	1
33	52717 E-12	Needle Bar, for Styles 527-24, 528-22 -----	1
34	52817-16	Needle Bar, for Styles 527-21, 527-22 -----	1
35	89	Screw, for Styles 527-21, 527-22, 527-24 -----	1
36	98	Screw, for Styles 527-22, 527-24 -----	2
-	22580	Screw, for Style 527-21 -----	2
37	52718-12	Needle Holder, for Styles 527-21, 527-22, 527-24 -----	1
38	52817 E-8	Needle Bar, for Styles 527-23, 528-21 -----	1
39	52818-8	Needle Holder, for Styles 527-23, 528-21, 528-22 -----	1
40	89	Screw -----	1
41	88 B	Screw -----	2
42	28 B	Screw -----	1
43	52842 G	Thread Guide Wire -----	1
44	29264 S-16	Needle Bar Assembly, for Styles 528-31, 528-32 -----	1
45	52817-16	Needle Bar -----	1
46	52818-8	Needle Holder -----	1
47	89	Screw -----	1
48	88 B	Screw -----	2
49	28 B	Screw -----	1
50	52842 G	Thread Guide Wire -----	1
51	28 C	Screw -----	1
52	52825 C	Needle Guard, for Class 527, 528 -----	1



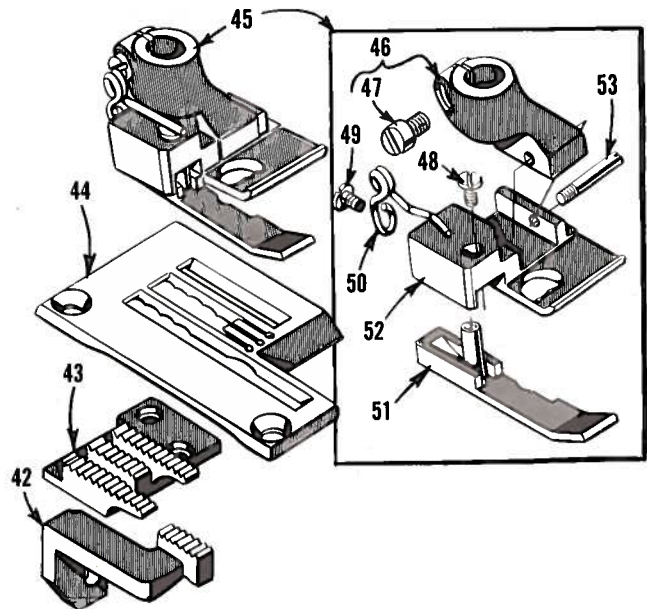
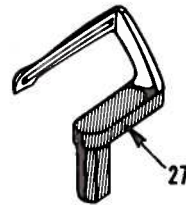
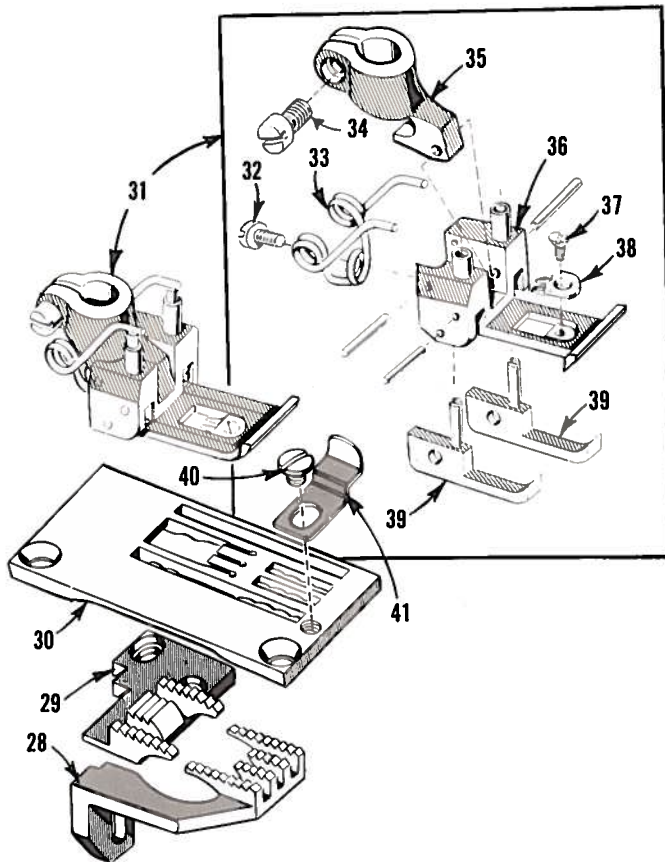
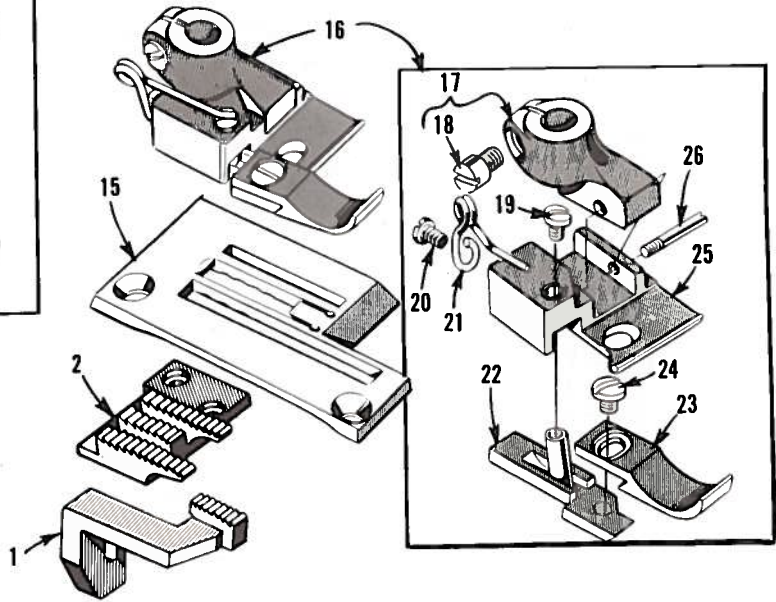
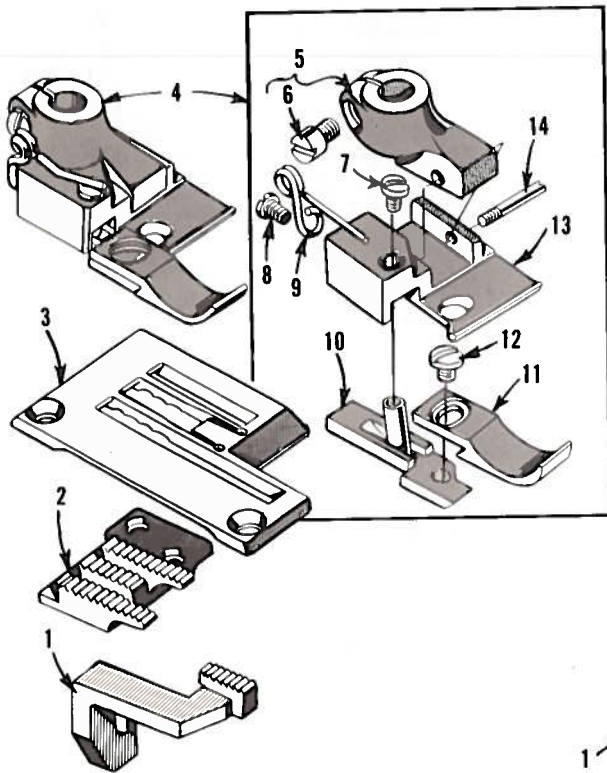
FEED DOGS, THROAT PLATES, PRESSER FEET AND LOOPERS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	51305 A	Feed Dog, for Style 513-11 -----	1
2	9224 E	Throat Plate, for Style 513-11 -----	1
3	51320 G	Presser Foot, for Style 513-11 -----	1
4	6530 A	Presser Foot Bottom -----	1
5	22799 B	Hinge Screw -----	1
6	1741 B	Chain Cutting Knife -----	1
7	187 A	Screw -----	1
8	91	Clamp Screw -----	1
9	6530	Presser Foot Shank -----	1
10	51409 C	Looper, for Styles; 513-11, 513-12 -----	1
11	21210 A	Looper Collar, .020 inch thick, for Styles 513-11, 513-12 -----	1
12	51305 W	Feed Dog, 22 teeth per inch, for Style 513-12 -----	1
13	51324 W	Throat Plate, for Style 513-12 -----	1
14	56320 F	Presser Foot, for Style 513-12 -----	1
15	56330 AB	Presser Foot Bottom, marked "BS" -----	1
16	22799 B	Hinge Screw -----	1
17	73 A	Screw, for tilting spring -----	1
18	56330 AX	Tilting Spring -----	1
19	56330 AJ	Hinge Pin -----	1
20	56330 AG	Connecting Screw -----	1
21	604	Screw, for chain cutting knife -----	1
22	52930 AC	Chain Cutting Knife, marked "D" -----	1
23	56330 AF	Hinge Screw -----	1
24	51430 F	Nut -----	1
25	56330 AU	Washer -----	1
26	41071 G	Locking Nut -----	1
27	56330 AD	Compression Spring -----	1
28	56330 AH	Pressure Regulating Nut -----	1
29	56330 AK	Yoke -----	1
30	22785	Screw -----	1
31	22560 B	Screw -----	1
32	88	Screw -----	1
33	56330 AE	Presser Foot Link, marked "A" -----	1
34	56330 AP	Bushing -----	1
35	6405 M	Feed Dog, for Style 513-13 -----	1
36	51224 B	Throat Plate, for Style 513-13 -----	1
37	6420 W	Presser Foot, for Style 513-13 -----	1
38	22799 E	Hinge Screw -----	1
39	6430	Presser Foot Shank -----	1
40	91	Clamp Screw -----	1
41	51430 F	Adjusting Nut -----	1
42	22840 A	Adjusting Screw -----	1
43	6430 A	Presser Foot Bottom -----	1
44	51909 C	Looper, for Style 513-13 -----	1
45	21210	Looper Collar, .040 inch thick, for Style 513-13 -----	1
46	51426 A-12	Feed Dog, for Style 514-21 -----	1
47	51428 A-12	Throat Plate, for Style 514-21 -----	1
48	51420-12	Presser Foot, for Style 514-21 -----	1
-	51420-16	Presser Foot, for Style 514-22 -----	1
49	51430 A-12	Presser Foot Bottom, for No. 51420-12 -----	1
-	51430 A-16	Presser Foot Bottom, for No. 51420-16 -----	1
50	22799 B	Hinge Screw -----	1
51	51430 D	Presser Foot Shank -----	1
52	91	Clamp Screw -----	1
53	51430 F	Adjusting Nut -----	1
54	22840 A	Adjusting Screw -----	1
55	51426 A-16	Feed Dog, for Style 514-22 -----	1
56	51428 A-16	Throat Plate, for Style 514-22 -----	1
57	51408-12	Looper, front, for Style 514-21 -----	1
-	51408-16	Looper, front, for Style 514-22 -----	1
58	51409	Looper, back, for Styles 514-21, 514-22 -----	1
59	51505-18	Feed Dog, for Styles 515-21, 515-22 -----	1
60	51524-16	Throat Plate, for Style 515-21 -----	1
-	51524-18	Throat Plate, for Style 515-22 -----	1
61	51520-16	Presser Foot, for Style 515-21 -----	1
-	51520-18	Presser Foot, for Style 515-22 -----	1
62	51530-16	Presser Foot Bottom, for No. 51520-16 -----	1
-	51530-18	Presser Foot Bottom, for No. 51520-18 -----	1
63	22799 C	Hinge Screw -----	1
64	51930	Spring -----	1
65	35830	Presser Foot Shank -----	1
66	91	Clamp Screw -----	1
67	51508 M-16	Looper, front, for Style 515-21 -----	1
-	51508 M-18	Looper, front, for Style 515-22 -----	1
68	51909 C	Looper, back, for Styles 515-21, 515-22 -----	1



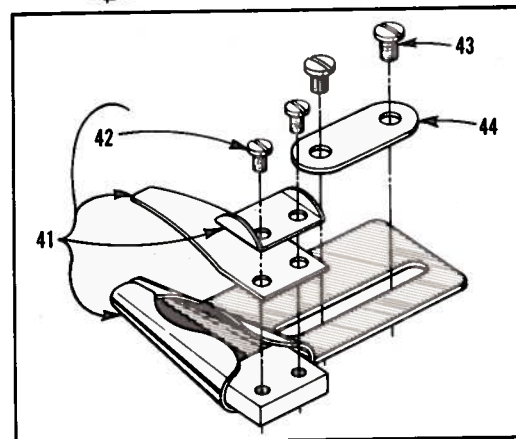
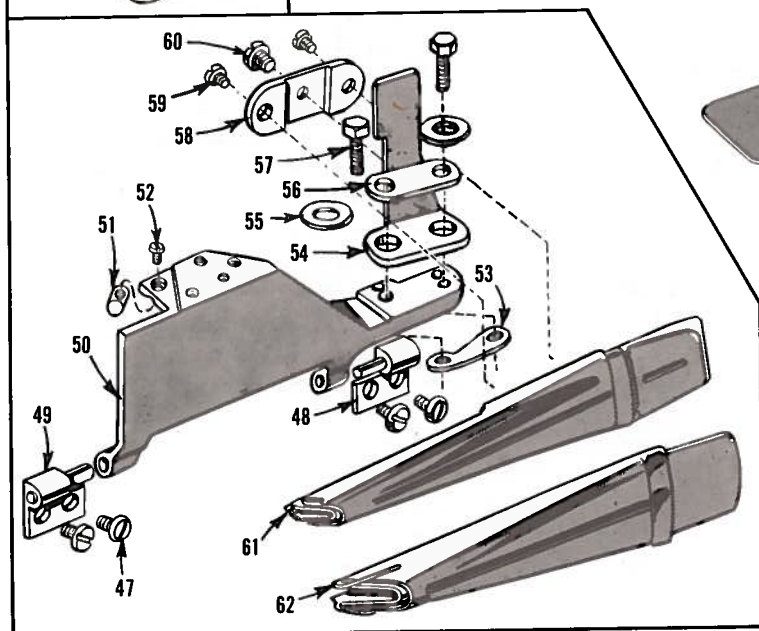
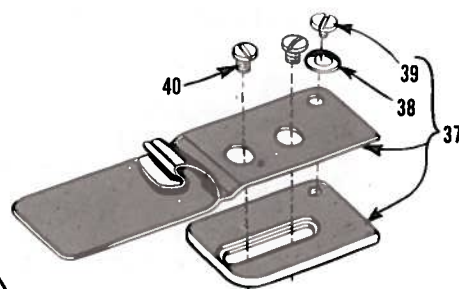
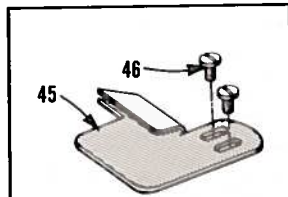
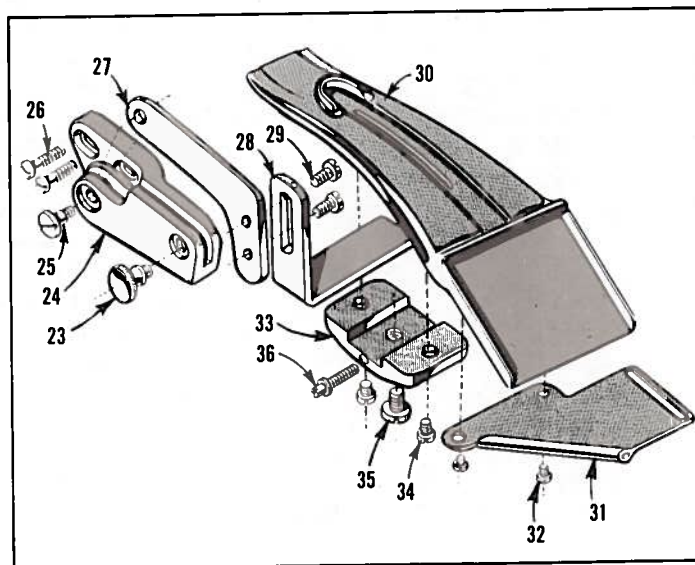
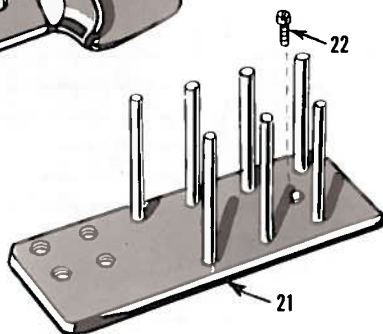
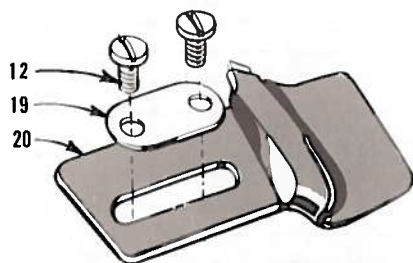
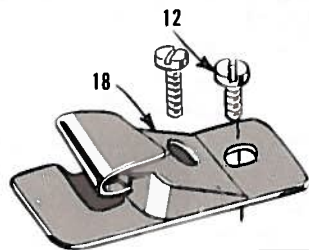
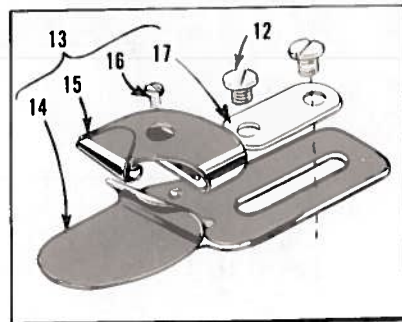
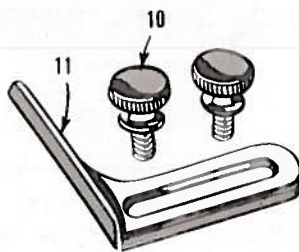
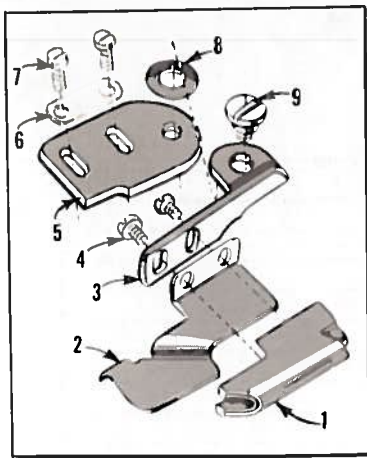
FEED DOGS, THROAT PLATES, PRESSER FEET AND LOOPERS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	51705-64	Feed Dog, for Style 517-21 -----	1
2	51724-64	Throat Plate, for Style 517-21 -----	1
3	51720-64	Presser Foot, for Style 517-21 -----	1
4	51730 A-64	Flexible Toe -----	1
5	91 A	Screw -----	2
6	51730-64	Presser Foot Bottom -----	1
7	51430	Presser Foot Shank -----	1
8	91	Clamp Screw, upper -----	1
9	77	Clamp Screw, lower -----	1
10	22752 B	Adjusting Screw -----	1
11	22799 D	Hinge Screw -----	1
12	51709	Looper, left, for Style 517-21 -----	1
13	51708	Looper, right, for Style 517-21 -----	1
14	21210	Looper Collar, .040 inch thick, for Style 517-21 -----	2
15	51905 C-9	Feed Dog, for Style 519-31 -----	1
16	51924 C-9	Throat Plate, for Style 519-31 -----	1
17	35820 R-9	Presser Foot, for Style 519-31 -----	1
18	35830 R-9	Bottom, front section -----	1
19	22845 A	Hinge Screw -----	6
20	35830 E	Yielding Section -----	1
21	35830 G	Bottom, rear section -----	1
22	22799 L	Set Screw -----	1
23	35830 F	Adjusting Nut -----	1
24	73 A	Screw -----	1
25	35830 D	Yielding Section Spring -----	1
26	22561	Screw -----	1
27	35830 B	Presser Foot Shank -----	1
28	91 D	Clamp Screw -----	1
29	22599	Screw -----	1
30	35830 K	Equalizing Spring, front section -----	1
31	35830 C	Yoke -----	1
32	35830 H	Equalizing Spring, rear section -----	1
33	51908 B-9	Looper, front, for Style 519-31 -----	1
34	51909 C	Looper, middle, for Style 519-31 -----	1
35	51909 D-9	Looper, back, for Style 519-31 -----	1
36	6905 H-16	Feed Dog, for Styles 527-21, 527-22 -----	1
37	52724 A-16	Throat Plate, for Styles 527-21, 527-22 -----	1
38	6920 A-16	Presser Foot, for Styles 527-21, 527-22 -----	1
39	605	Screw -----	1
40	11940	Spring, for yielding section -----	1
41	91	Screw -----	1
42	6930 A-16	Bottom -----	1
43	6942 A	Yielding Section, left -----	1
44	6941 A	Yielding Section, right -----	1
45	52708 B	Looper, for Class 527 -----	1
46	21210 A	Looper Collar, .020 inch thick, for Styles 527-21, 527-22 -----	1
47	7205 A	Feed Dog, for Styles 527-23, 527-24 -----	1
48	52724 H-8	Throat Plate, for Style 527-23 -----	1
-	52724 H-12	Throat Plate, for Style 527-24 -----	1
49	52720 J-8	Presser Foot, for Style 527-23 -----	1
-	52720 J-12	Presser Foot, for Style 527-24 -----	1
50	51430 D	Presser Foot Shank -----	1
51	91	Screw -----	1
52	22799 B	Hinge Screw -----	1
53	52730 U-8	Presser Foot Bottom, for No. 52720 J-8 -----	1
-	52730 U-12	Presser Foot Bottom, for No. 52720 J-12 -----	1
54	52730 W	Adjustable Edge Guide -----	1
55	52730 V	Auxiliary Edge Guide -----	1
56	1096	Screw -----	1
57	604	Screw -----	1
58	51430 F	Nut -----	1
59	22840 A	Screw -----	1



FEED DOGS, THROAT PLATES, PRESSER FEET AND LOOPERS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	5026 A	Differential Feed Dog, for Styles 528-21, 528-22 -----	1
2	52805 F-8	Main Feed Dog, for Styles 528-21, 528-22 -----	1
3	52824 F-8	Throat Plate, for Style 528-21 -----	1
4	52820 H-8	Presser Foot, for Style 528-21 -----	1
5	13130 B	Presser Foot Shank -----	1
6	91	Screw -----	1
7	73 A	Screw -----	1
8	605	Screw -----	1
9	11534	Spring -----	1
10	52830 C	Yielding Section -----	1
11	52830 D	Adjustable Guide -----	1
12	22561	Screw -----	1
13	52830 H-8	Presser Foot Bottom -----	1
14	22799 B	Hinge Screw -----	1
15	52824 F-12	Throat Plate, for Style 528-22 -----	1
16	52820 H-12	Presser Foot, for Style 528-22 -----	1
17	13130 B	Presser Foot Shank -----	1
18	91	Screw -----	1
19	73 A	Screw -----	1
20	605	Screw -----	1
21	11534	Spring -----	1
22	52830 C	Yielding Section -----	1
23	52830 D	Adjustable Guide -----	1
24	22561	Screw -----	1
25	52830 H-12	Presser Foot Bottom -----	1
26	22799 B	Hinge Screw -----	1
27	52708 B	Looper, for Class 528 -----	1
28	3026 A	Differential Feed Dog, for Style 528-31 -----	1
29	52805 D-16	Main Feed Dog, for Style 528-31 -----	1
30	52824 D-16	Throat Plate, for (12 to 15 S.P.I.), Style 528-31 -----	1
-	52828 D-16	Throat Plate, for (16 to 18 S.P.I.), Style 528-31 -----	1
31	G52827-16	Presser Foot, for Style 528-31 -----	1
32	605	Screw -----	1
33	79633	Spring -----	1
34	91	Screw -----	1
35	G65-134	Presser Foot Shank -----	1
36	G52827-1	Presser Foot Bottom -----	1
37	22716 A	Screw -----	1
38	G52897 A-16	Stitch Tongue -----	1
39	G52827-2	Yielding Section -----	2
40	187 A	Screw, for Style 528-31 -----	1
41	23195	Guide, for Style 528-31 -----	1
42	52826 K	Differential Feed Dog, for Style 528-32 -----	1
43	52805 K	Main Feed Dog, for Style 528-32 -----	1
44	52824 K-16	Throat Plate, for Style 528-32 -----	1
45	52820 K-16	Presser Foot, for Style 528-32 -----	1
46	13130 B	Presser Foot Shank -----	1
47	91	Screw -----	1
48	73 A	Screw -----	1
49	605	Screw -----	1
50	11534	Spring -----	1
51	13130 A	Yielding Section -----	1
52	52830 K-16	Presser Foot Bottom -----	1
53	22799 B	Hinge Screw -----	1



ATTACHMENTS

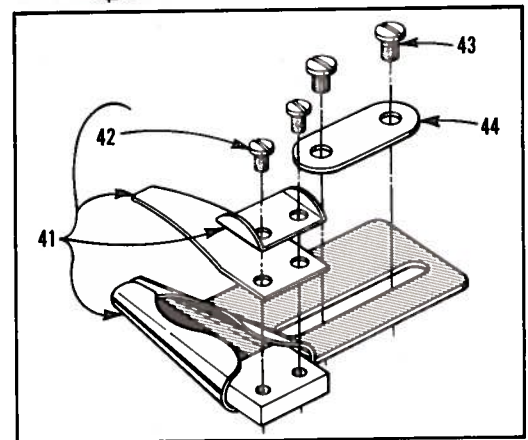
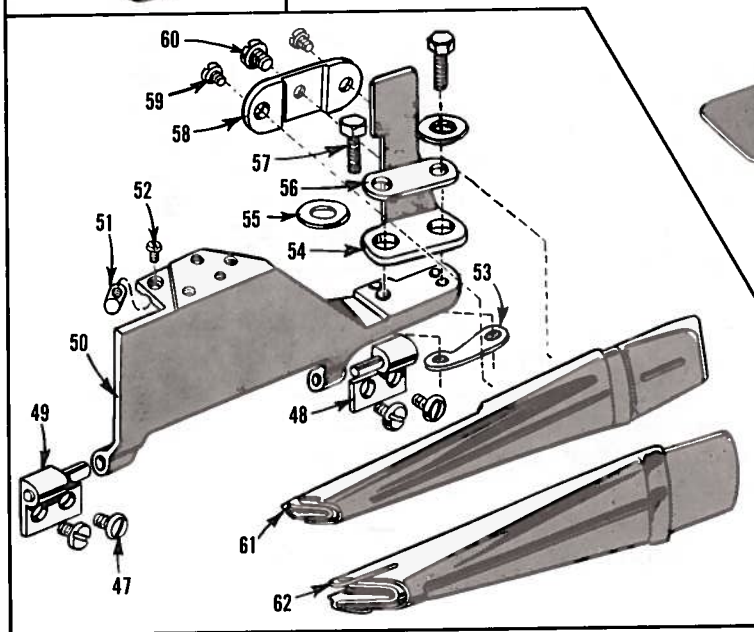
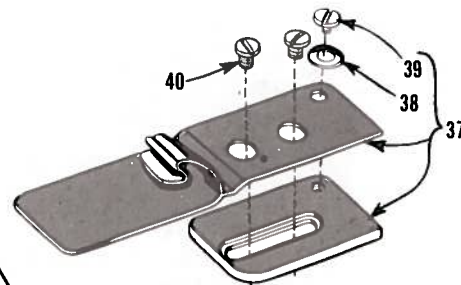
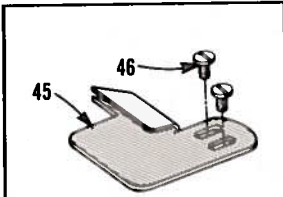
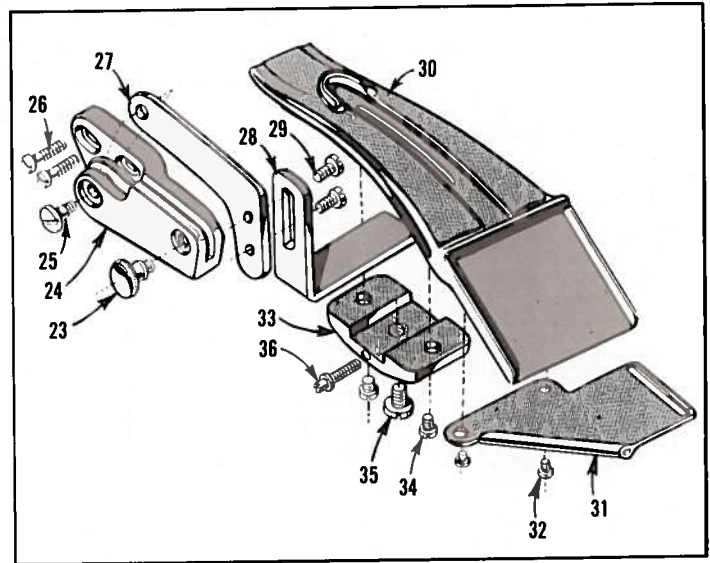
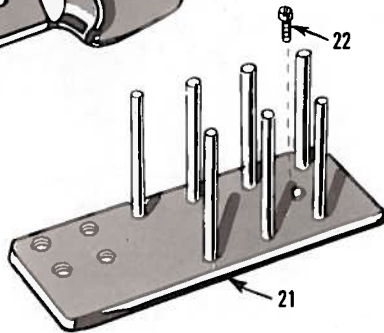
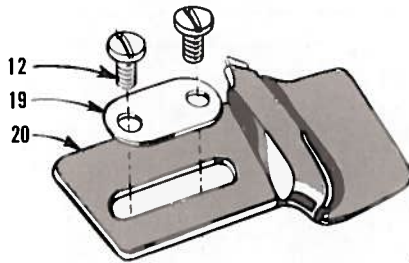
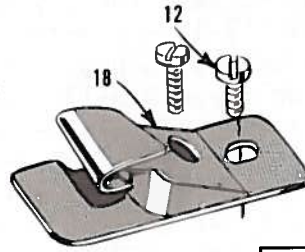
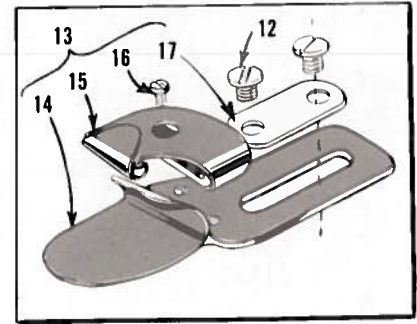
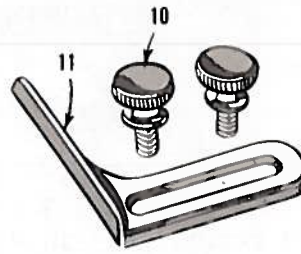
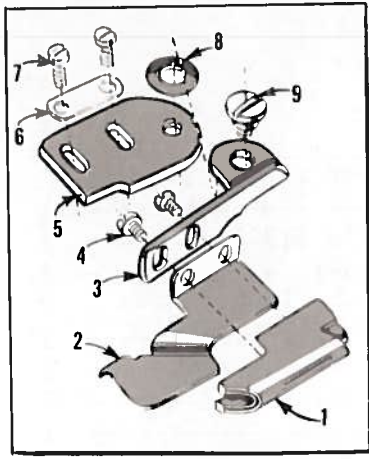
<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	23215 BC-3/4	English Binder, uses 3/4 inch strip and finishes 3/8 inch for Style 513-13 -----	1
2	23438 B	Body Fabric Lead-in Platform, for Style 513-13 -----	1
3	23437 Y	Binder Swinging Bracket, for Style 513-13 -----	1
4	90	Screw, for Style 513-13 -----	2
5	23437 B	Binder Swinging Bracket Support, for Style 513-13 ----	1
6	23425 T	Washer Plate, for Style 513-13 -----	1
7	22585	Screw, for Style 513-13 -----	2
8	12957 E	Spring Washer, for Style 513-13 -----	1
9	22735	Screw, for Style 513-13 -----	1
10	25	Screw, for Style 513-11, 513-12 -----	2
11	24	Edge Guide, for Styles 513-11, 513-12 -----	1
12	25 C	Screw, for Class 514, 515, 517, 519 -----	1
13		Double Lap Seam Feller Assembly (See Chart Below) ----	1
14		Lower Scroll and Base (See Chart Below) -----	1
15		Upper Scroll (See Chart Below) -----	1
16	28	Screw, for Class 514, 515 -----	1
17	23425 V	Washer Plate, for Class 514, 515 -----	1

DOUBLE LAP SEAM FELLERS

Assembly No. Ref. 13	Gauge	Capacity	Lower Scroll Ref. 14	Upper Scroll Ref. 15	Machine Style
23420 U-12-1/16	12	1/16	23422 U-1/16	23421 U-12-1/16	514-21
23420 U-16-1/16	16	1/16	23422 U-1/16	23421 U-16-1/16	514-22
23420 U-16-3/32	16	3/32	23422 U-3/32	23421 U-16-3/32	515-21
23420 U-18-3/32	18	3/32	23422 U-3/32	23421 U-18-3/32	515-22

18	23151 A	Plate Folder and Guide, for heavy material, 1/4 inch capacity for both plies, top ply folded, lower ply flat, 1/2 inch overlap, for Style 519-31 -----	1
19	23425 V	Washer Plate, for Style 517-21 -----	1
20	23405 L	Folder, for turning body of garment upwardly, 1/32 inch capacity, 5/16 inch fold, for Style 517-21 ----	1
21	23439 A	Pin Tension, for Style 513-13 -----	1
22	90	Screw -----	1
*23	25 T	Screw -----	1
*24	23229 W	Folder Swinging Arm Support, for Style 517-21 -----	1
*25	22773	Screw -----	1
26	22541	Screw -----	2
*27	23229 N	Folder Swinging Arm, for Style 517-21 -----	1
28 thru 62		See following page	

*Available complete as part No. 29481 D (Suspended Folder Arm Assembly).



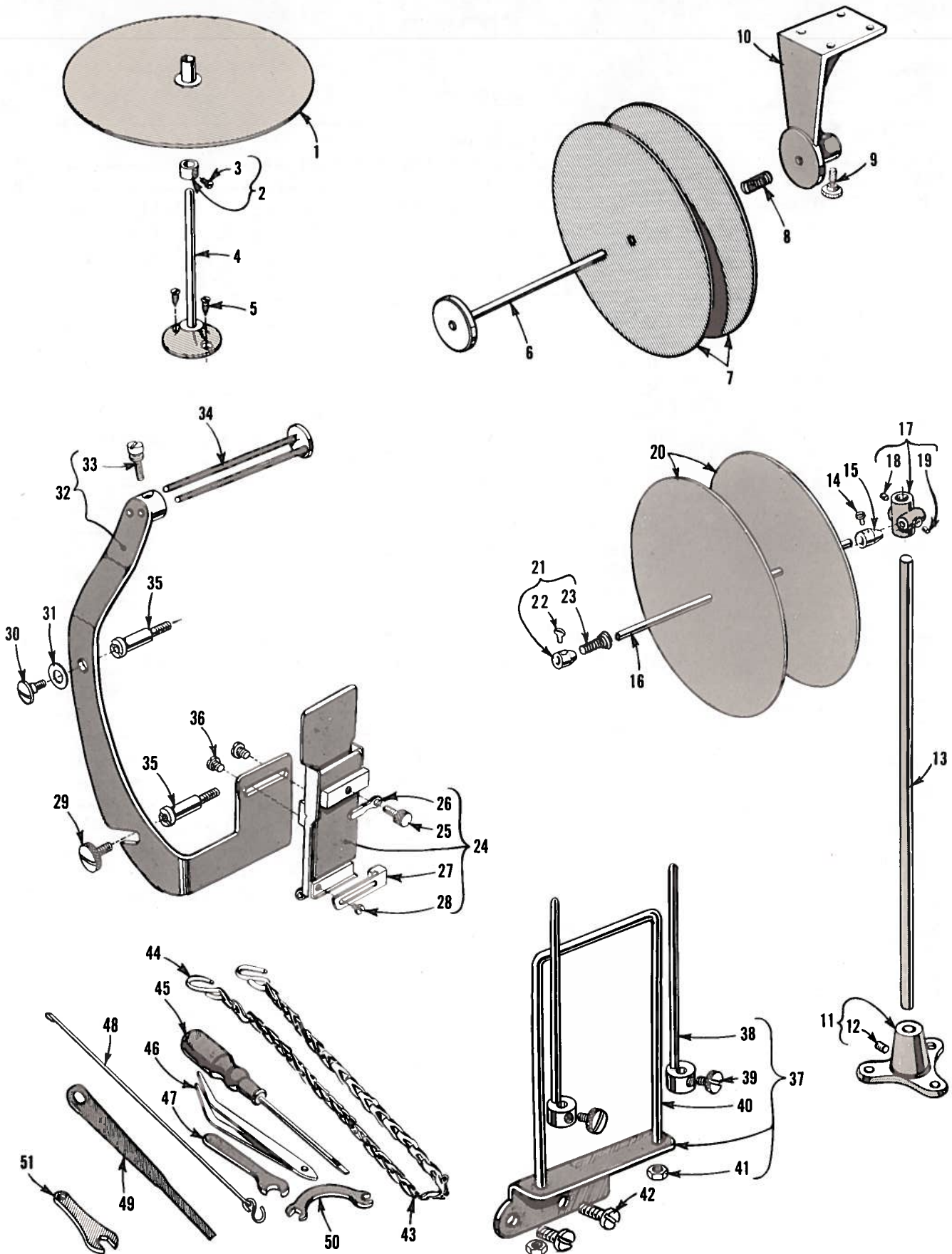
ATTACHMENTS

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1 thru 27		See preceding page	
*28	23229 P	Folder Bracket, for Style 517-21 -----	1
*29	22528	Screw -----	2
30	23401 K-64	Center Plait Folder, 1/32 inch capacity, plait extends 1/4 inch beyond rows of stitches, uses plait cut 2 1/2 inches wide, finishes 1 1/2 inches, interlining strip cut 1 15/32 inches wide, for Style 517-21 -----	1
31	23403-64	Angular Strip Guide, reversible, for Style 517-21 ----	1
32	25 B	Screw -----	2
*33	23229 Q	Folder Clamp, for Style 517-21 -----	1
*34	25 CC	Screw -----	2
*35	25 S	Screw -----	1
*36	22863 A	Adjusting Screw -----	1
37	23405 T	Folder, 1/16 inch capacity, 1/8 inch fold upwardly, for Styles 527-23, 527-24 -----	1
38	12957 E	Spring Washer -----	1
39	22726	Screw -----	1
40	25 C	Screw -----	2
41	23254	Folder, 7/8 inch wide strip, 3/8 inch finish, for Style 527-22 -----	1
42	22561	Screw -----	2
43	25 C	Screw -----	2
44	23425 V	Washer Plate, for Style 527-22 -----	1
45	23133 L	Edge Guide, 3/64 inch capacity, for Styles 528-21, 528-22, 528-32 -----	1
46	22561	Screw -----	2
47	22848	Screw, for Class 528 -----	4
48	57885	Swing Cover Hinge, right, for Class 528 -----	1
49	52885 H	Swing Cover Hinge, left, for Class 528 -----	1
50	57764 B	Folder Support Hinged Bracket, for Class 528 -----	1
51	57885 A	Hinge Bracket Spring Pin, for Class 528 -----	1
52	22564	Screw, for Class 528 -----	1
53	57864	Clamp Plate, for Styles 528-21, 528-22, 528-32 -----	1
54	52864 N	Folder Support Bracket, for Styles 528-21, 528-22, 528-32 -----	1
55	53634 C	Washer, for Styles 528-21, 528-22, 528-32 -----	2
56	23425 V	Washer Plate -----	1
57	T38	Screw -----	2
58	23432	Folder Clamp, for Styles 528-21, 528-22, 528-32 -----	1
59	25 CC	Screw -----	2
60	25 S	Screw -----	1

TABLE OF FOLDERS

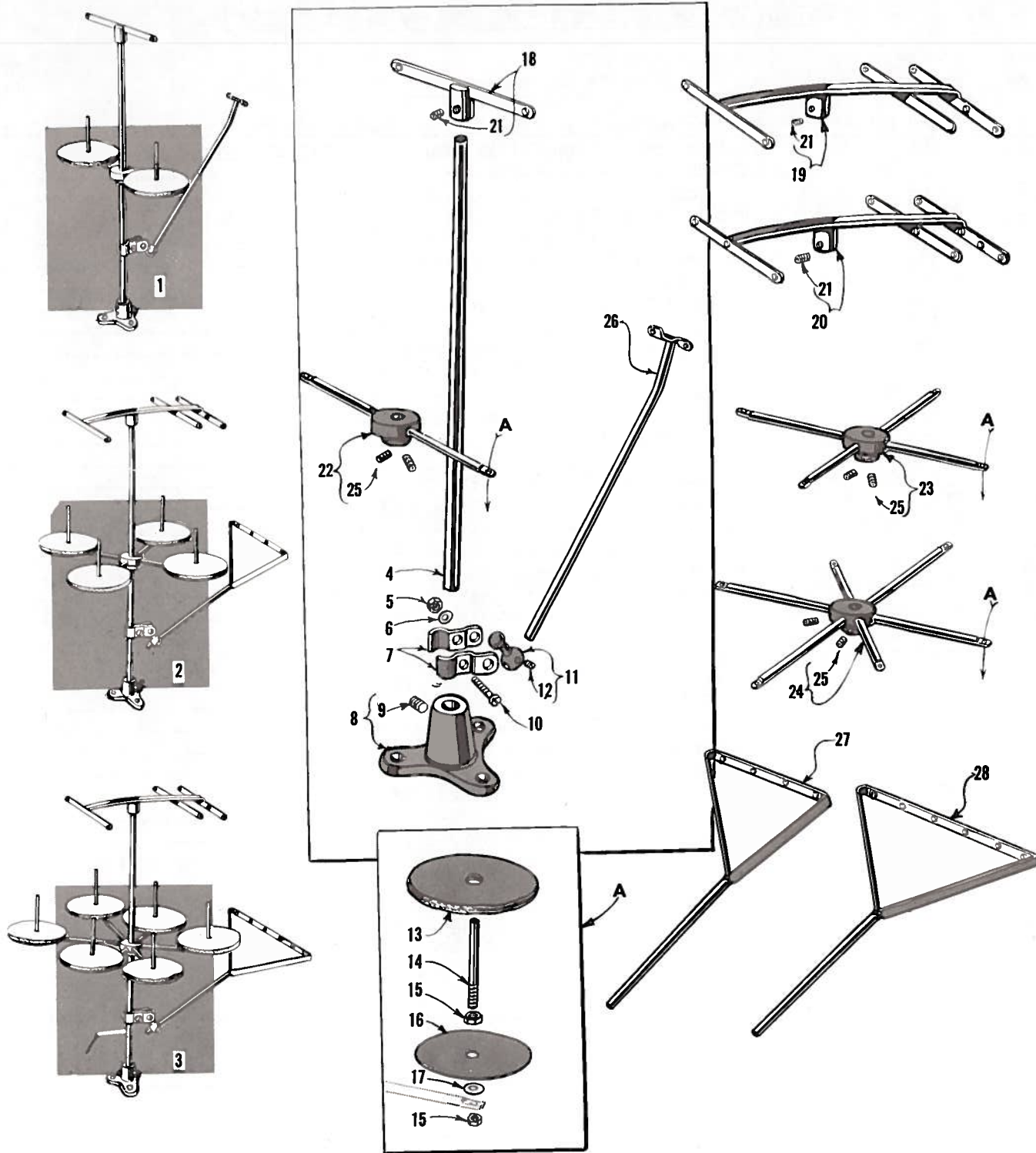
<u>Ref. No.</u>	<u>Part No.</u>	<u>Machine Style Used on</u>	<u>Seam Type</u>	<u>Strip Size</u>	<u>Finish Size</u>	<u>Strip Cap.</u>	<u>Uncurlers</u>	<u>Amt. Req.</u>
61	23406 R-1/2	528-21, 528-22	BSb-1	1-1/4"	1/2" top	3/64"	Ent. & Del.	1
62	23406 N-1	528-32	BSa-1	2"	1"	5/64"	None	1

*Available complete as part No. 29481 D (Suspended Folder Arm Assembly).



STRIP TENSION PARTS, STRIP HOLDING PARTS AND ACCESSORIES

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Amt. Req.</u>
1	21169 E	Binding Holder Disc, for Styles 513-13, 528-21, 528-22, 528-32 ---	1
2	161	Binding Holder Stop Collar, for Styles 513-13, 528-21, 528-22, 528-32 -----	1
3	88	Screw -----	1
4	22169 F	Binding Holder Base, for Styles 513-13, 528-21, 528-22, 528-32 ---	1
5	SC303	Wood Screw #12-1" long -----	2
6	21385 B	Tape Reel Axle, for Style 517-21 -----	1
7	21178	Tape Reel Disc, for Style 517-21 -----	2
8	110-3	Tape Reel Spring, for Style 517-21 -----	1
9	201 C	Tape Reel Axle Screw, for Style 517-21 -----	1
10	201 A	Tape Reel Frame, For Style 517-21 -----	1
11	21114 A	Tape Holder Base, for Styles 527-23, 527-24 -----	1
12	22651 CD-4	Screw -----	1
13	21104 B-20	Tape Reel Support Rod, for Styles 527-23, 527-24 -----	1
14	188 D	Screw, for Styles 527-23, 527-24 -----	1
15	753	Axle Cone, for Styles 527-23, 527-24 -----	1
16	21102 B	Tape Reel Rod, for Styles 527-23, 527-24 -----	1
17	21217 A	Rod Support, for Styles 527-23, 527-24 -----	1
18	22651 CD-4	Screw -----	1
19	22650 CB-4	Screw -----	1
20	21178 A	Tape Holder Disc, for Styles 527-23, 527-24 -----	2
21	21177 A	Tape Reel Collar, for Styles 527-23, 527-24 -----	1
22	22647 K-24	Screw -----	1
23	1349 A-5	Spring -----	1
24	23306 Z	Strip Guide and Tension, complete, 1/4 inch to 1 1/4 inch wide strips, for Styles 527-23, 527-24 -----	1
25	22703	Screw -----	1
26	23306 AF	Tension Adjusting Nut -----	1
27	23306 T	Adjustable Strip Guide -----	1
28	25 B	Screw -----	1
29	22837	Thumb Screw, for Styles 527-23, 527-24 -----	1
30	22504 C	Screw, for Styles 527-23, 527-24 -----	1
31	12957 E	Spring Washer, for Styles 527-23, 527-24 -----	1
32	23306 AA	Strip Guide and Tension Assembly Mounting Bracket, for Styles 527-23, 527-24 -----	1
33	22568	Screw -----	1
34	23306 A	Frame Border Guide, for Styles 527-23, 527-24 -----	1
35	52782 C	Stud, for Styles 527-23, 527-24 -----	2
36	25 CC	Screw, for Styles 527-23, 527-24 -----	2
37	23439 G	Strip Tension, for Styles 528-21, 528-22, 528-32 -----	1
38	23439 F	Adjustable Pin -----	2
39	188 D	Screw -----	2
40	51-561 Blk.	Guide -----	1
41	907	Nut -----	2
42	22548	Screw, for Class 528-21, 528-22, 528-32 -----	2
43	421 D-28	Treadle Chain, 28 inches long -----	1
44	660-264	"S" Hook, for all Styles except 528-31, 528-32 -----	3
-	660-264	"S" Hook, for Styles 528-31, 528-32 -----	5
45	21201	Screwdriver, 9/64 inch round blade, length over all 7 5/8 inches, all except Class 513 -----	1
46	660-240	Thread Tweezer -----	1
47	21388	Wrench, single end, 3/8 inch opening -----	1
48	51493 BC	Lifter Link -----	1
49	23279 D	Folder Threader, for Styles 528-21, 528-22, 528-32 -----	1
50	21388 W	Wrench, double end, curved, 9/32 inch opening, for Class 528 -----	1
51	116	Wrench 9/32 inch open end for Class 513 -----	1
-	660-457	Dust Cover, not illustrated -----	1
-	413 D	Oil Can, not illustrated -----	1
-	28604 R	Can of Oil, 16 fluid ounces, Spec. 175, not illustrated -----	1



THREAD STAND PARTS

Ref. No.	Part No.	Description	Amount Required		
			One Needle	Two Needle	Three Needle
1	21101 H-2	Thread Stand, complete	1		
2	21101 H-4	Thread Stand, complete		1	
3	21101 H-6	Thread Stand, complete			1
4	21104 B-24	Thread Stand Rod	1	1	1
5	21104 H	Nut	1	1	1
6	652-16	Washer	1	1	1
7	21114 U	Lead Eyelet Ball Split Socket	2	2	2
8	21114 A	Base	1	1	1
9	22651 CD-5	Screw	1	1	1
10	22810	Screw	1	1	1
11	21114 T	Lead Eyelet Socket Ball	1	1	1
12	22651 CD-4	Screw	2	2	2
13	21104 V	Felt Pad	2	4	6
14	21114 W	Spool Pin	2	4	6
15	258 A	Nut	4	8	12
16	21114	Spool Seat Disc	2	4	6
17	652-16	Washer	2	4	6
18	21114 H-2	Eyelet Support	1		
19	21114 H-4	Eyelet Support		1	
20	21114 H-6	Eyelet Support			1
21	22651 CD-4	Screw	2	2	2
22	21114 D-2	Spool Seat Support	1		
23	21114 D-4	Spool Seat Support		1	
24	21114 S-6	Spool Seat Support			1
25	22651 CD-5	Screw	2	2	2
26	21114 S-2	Lead Eyelet	1		
27	21114 S-4	Lead Eyelet		1	
28	21114 S-6	Lead Eyelet			1
-	SC303	Wood Screw, not shown	3	3	3

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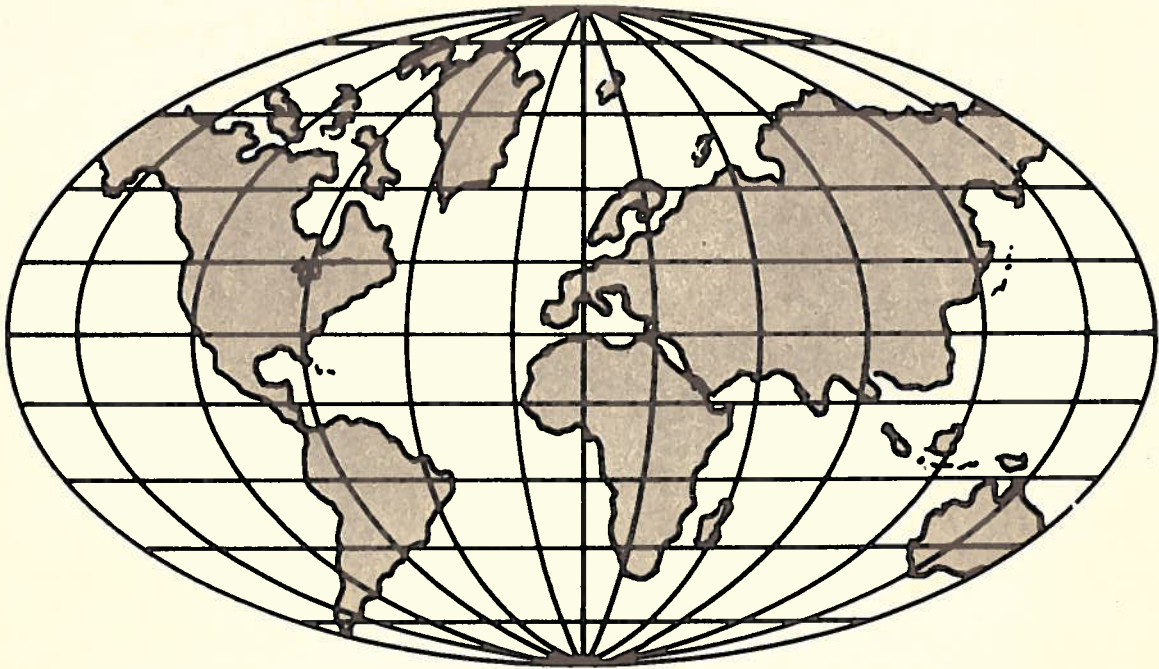
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